

NOLOGY DEPT

# MODERN PACKAGING

November

1946

NOV 22 1946  
DETROIT

AR  
TION  
E, CALIF.  
ipal Cite  
COATING

*viewing*



## WHEN AN ADHESIVE MUST

*Resist Dew!*

**RELY on National...with its wide knowledge of unusual adhesive uses...to provide protection against any form of moisture.**

Do you need a moisture resistant adhesive . . . to protect quick-freeze packages against dew-formation . . . to protect bathroom packages against shower condensate . . . to protect potato bags against excessive moisture caused by freight car humidity . . . to prevent mildew during prolonged damp, dark storage?

Or is your problem more complex? Do you need a moisture resistant adhesive film . . . that supplies *breather action* to permit asphalt to be packaged and sealed while still steaming hot . . . that supplies a

*moisture vapor barrier* to retain the freshness of various types of foods . . . that supplies *water barrier action* to prevent rain from causing ripples or cockles in heavy cardboard advertising displays?

Remember, moisture resistance is only one of many factors that control a successful adhesive formula. Of course, shop use must also be studied carefully. Shipping methods must be known. Consumer preferences must be analyzed. They have a direct bearing on final—and repeat sales!

You can rely on National . . . with its knowledge of every type of adhesive formula and use . . . to give careful attention to every factor of your adhesive problem. Your inquiry is invited — NOW!

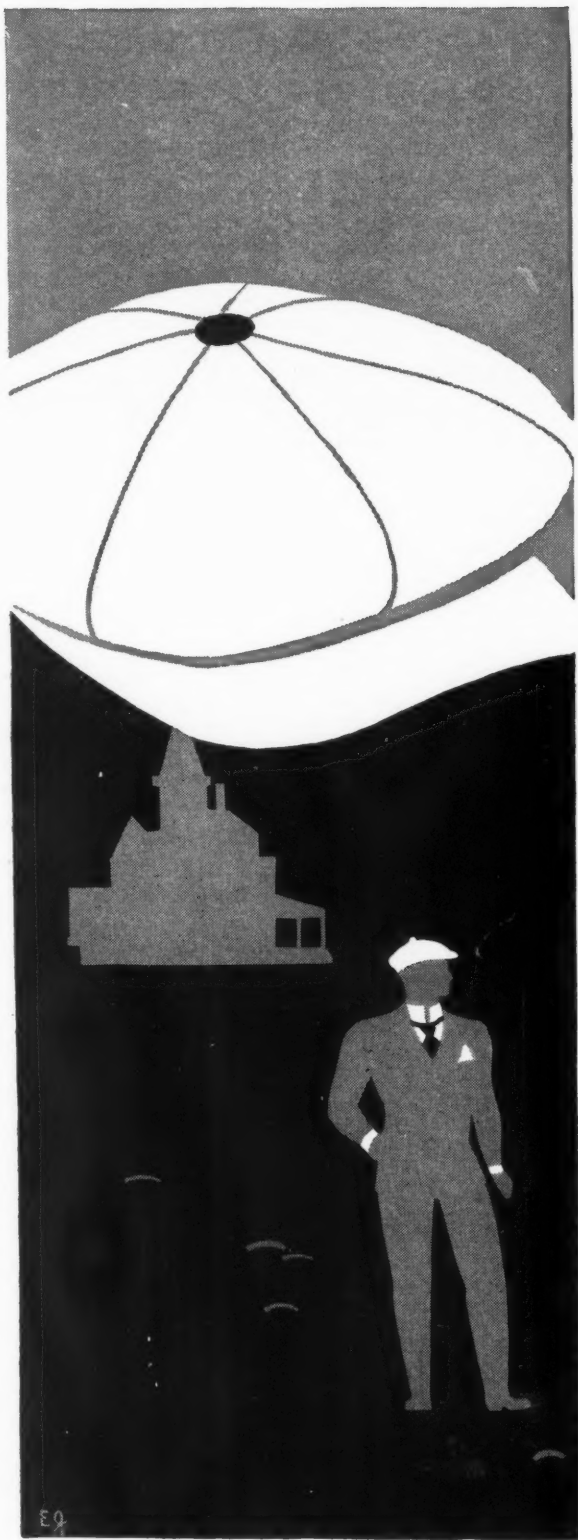
• Offices: 270 Madison Avenue, New York 16;  
3641 So. Washtenaw Avenue, Chicago 32;  
735 Battery Street, San Francisco 11, and other  
principal cities. In Canada: Meredith, Simmons  
& Co., Ltd., Toronto. In England: National Ad-  
hesives, Ltd., Slough.

**National**  
**ADHESIVES**



**EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE**





## S I M P L E

A SIMPLE CAP for glass packages is a handy cap for packer and consumer. A problem cap to either is a handicap to both. The Phoenix CT is a simple cap designed for the convenience of our customers . . . and for the convenience of theirs. Simple to apply, mechanically or manually; simple to remove for even the least closure-wise, the Phoenix CT is neither a problem cap nor a handicap to either packer or consumer. On the contrary, its simple features make it a boon to both.

*Top wear for glassware*

**PHOENIX METAL CAP CO.  
Chicago 8 and Brooklyn 18**

CHARLES A. BRESKIN, *Publisher*  
 CHRISTOPHER W. BROWNE, *Editor-in-chief*  
 LLOYD STOFFER, *Editor*  
 PEARL HAGENS, *Managing Editor*  
 JULIA J. HICKS, *Associate Editor*  
 CHARLES A. SOUTHWICK, JR., *Technical Editor*  
 DONALD R. RUTHER, *Art Director*  
 H. A. LEVEY, *Patents*  
 FLORENCE GETTER, *Readers' Service*  
 VAL WRIGHT, *Midwest Editor (Chicago)*

#### BUSINESS STAFF

ALAN S. COLE, *General Manager*  
 P. H. BACKSTROM      M. A. OLSEN  
 J. A. DRUCKER      B. W. GUSSOW  
 Chicago: J. M. CONNORS  
             W. F. KENNEDY

Cleveland: R. C. BEGGS  
 Los Angeles: L. B. CHAPPELL

DANIEL M. BROADS, *Production*  
 FRANCES MARLENS, *Production*  
 LEE K. BENDHEIM, *Promotion*

EXECUTIVE and EDITORIAL  
 OFFICES: Chanin Bldg., 122 E. 42nd  
 St., New York 17; Tel.—Ashland 4-0655.

CIRCULATION DEPT: 32 Broadway,  
 New York 4, Tel.—WHitehall 4-4782.

BRANCH OFFICES: Chicago: 221 N.  
 LaSalle St., Chicago 1, Ill.; Tel.—Ran-  
 dolph 5588. Cleveland: 815 Superior Ave.,  
 Cleveland 14, O.; Tel.—Superior 0737.  
 Los Angeles: 427 W. 5th St., Los Angeles  
 13, Calif.; Tel.—Michigan 9849.

Published the 5th of each month by  
 Modern Packaging Corp. Publication  
 office: Twentieth and Northampton Sts.,  
 Easton, Pa. Subscription \$5.00 per year  
 in United States; Canadian, \$5.50;  
 foreign, \$6.00. Two-year subscription:  
 United States, \$8.00; Canadian, \$9.00;  
 foreign, \$10.00. All foreign subscriptions  
 payable in United States currency or  
 equivalent in foreign currency computed  
 in current exchange by money order or  
 by draft on a New York bank. Price this  
 issue, 50¢ per copy. Copyright 1946 by  
 Modern Packaging Corp. All rights re-  
 served including the right to reproduce  
 this book or portion thereof in any form.  
 Printed in U. S. A. Acceptance under  
 the Act of June 5, 1934, at Easton, Pa.  
 Authorized October 7, 1936.

MODERN PACKAGING is regularly  
 indexed in the *Industrial Arts Index*.



Member of Audit Bureau of Circulations

# MODERN PACKAGING

VOLUME 20

NOVEMBER 1946

NUMBER 3

★ ★ ★

## General

CO-ORDINATED MARKETING.....	91
<i>New drama of selling puts the spotlight on packaging</i>	
YEAST MACHINE.....	95
<i>Makes and dates 85 packets a minute</i>	
WAXED FIBRE CAN FOR FROZEN FOODS.....	96
<i>Seabrook Farms adoption puts new container to test</i>	
PACKAGING PUTS IT OVER.....	102
<i>Display carton makes a hit of merchandising dud</i>	
COOKIES NATIONWIDE.....	103
<i>Boxes make Zion products self-promoting</i>	
THE PRODUCT MAKES THE TRADEMARK.....	104
<i>An ingenious "H" links all Hassell hardware promotion</i>	
EYE CATCHER.....	106
<i>Baker's Chocolate bids for impulse sales</i>	
DRILLS.....	107
<i>Packaged by Century to speak for themselves</i>	
DESIGN HISTORIES.....	108
PACKAGE SPACE.....	112
<i>Your best advertising medium—and it's for free.</i>	
SIMPLE FOR SHOPPERS.....	115
<i>Red &amp; White cereals redesign notes self-service trend</i>	
BRITISH PACKAGING MAKES IT.....	116
<i>The art wins recognition in London postwar exhibit</i>	
PYREX WARE BACK IN SETS.....	120
<i>Pre-packing sells assortments, Corning finds</i>	
PACKAGING PAGEANT.....	122
"FOIL FRESH".....	126
<i>Protection and eye appeal for gift goodies</i>	
HOUSEWIFE'S LIBRARY.....	128
<i>Carrier packs for cleaning fluids sold in sets</i>	
FROZEN COOKED MEALS.....	130
<i>Maxson's plate package for consumers makes its bow</i>	
WHITHER PRE-PACKAGING?.....	132
<i>Views of a Government marketing economist</i>	
THE CHALLENGE OF PRE-PACKAGING.....	134
<i>An opportunity and a problem for suppliers</i>	
DISPLAY GALLERY.....	136
SHRINK SEALS.....	138
<i>New bottle-cap band of tough vinyl plastic</i>	
PACKAGING INSTITUTE PROGRAM.....	140
<i>Twelve product groups to hold separate seminars</i>	

## Technical

THE KINETICS OF PACKAGE LIFE.....	143
<i>A British formula for determination of shelf life</i>	
P. I. STANDARD TEST METHODS.....	147
<i>5. For block point</i>	
CUSHIONING MATERIALS.....	148
<i>2. Analysis and selection</i>	
QUESTIONS AND ANSWERS.....	152

## Departments

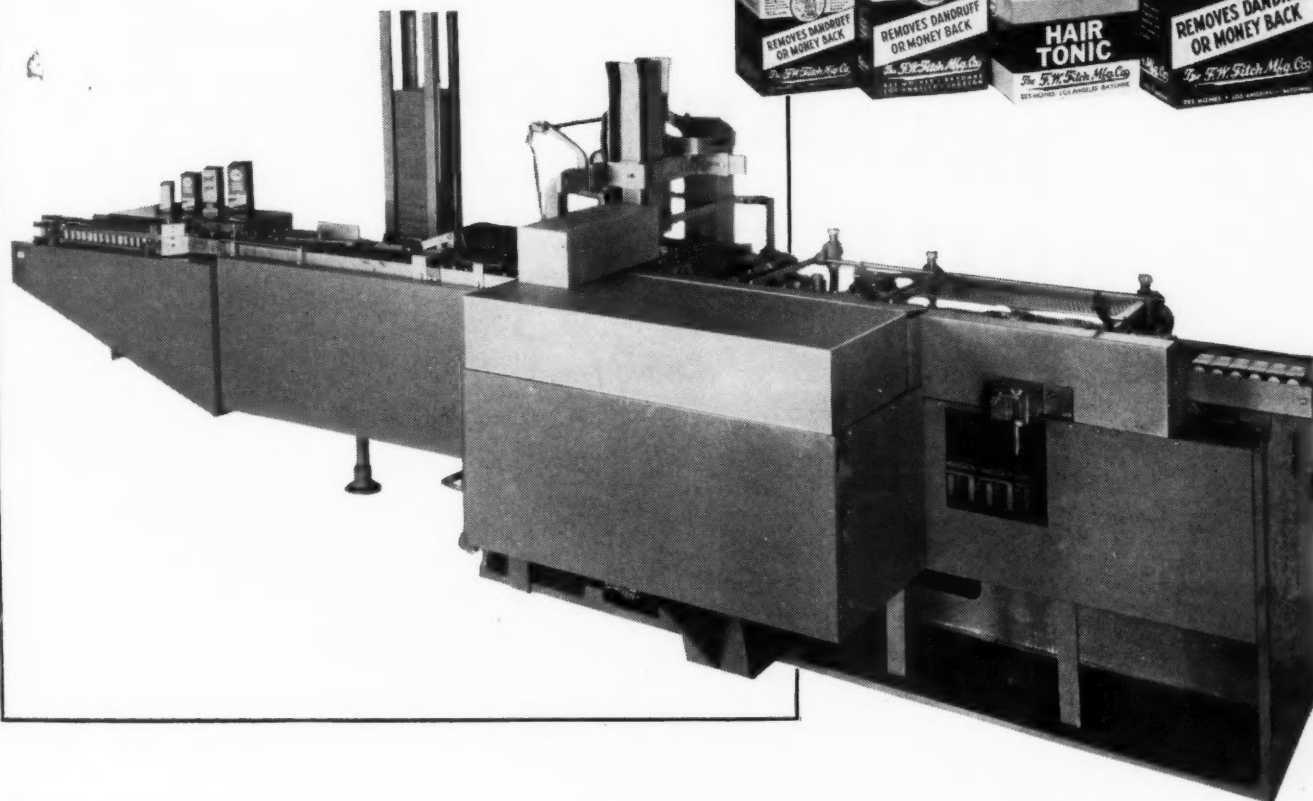
WASHINGTON REVIEW.....	154
EQUIPMENT AND MATERIALS.....	156
PLANTS AND PEOPLE.....	158
FOR YOUR INFORMATION.....	160
U. S. PATENT DIGEST.....	162

**COVER**—The coal mine is the source of many basic raw materials used in the making of plastics, such as phenol and formaldehyde. On this month's cover, Peter Piening has symbolized the derivation of plastic closures and containers by using as background a diagrammatic design of mine entrance and shaft.



# All four Fitch sizes

ARE CARTONED ON ONE  
ADJUSTABLE REDINGTON



**T**HE latest addition to a battery of Redingtons that have been cartoning the famous F. W. Fitch Co. products since 1938 . . . this *quickly adjustable* cartoning machine does a remarkably smooth 4-in-1 job.

It's a *simple matter to change over* from one size package to another . . . each adjustment on the Redington is identified by a brass numeral tag . . . By *merely referring* to the list of adjustments, the machine is quickly changed over from any one of the four size cartons.

*The operation is simple:* Collapsed cartons are stacked in the machine's magazine. Corrugated protectors are stacked in a second magazine. Bottles are discharged from labeling machine into the cartoning unit's intake conveyor. Machine tips bottle horizontally into con-

veyor . . . wraps protector around bottle . . . feeds carton . . . inserts bottle . . . then closes carton by tucking in end flaps. When cartoning 4 oz. and 6 oz. bottles, bottom flaps are glued . . . on the 1 oz. and 2 1/8 oz. sizes, spot gluing is omitted. *Speed:* 120 a minute.

Many mechanical and engineering features contribute to the *smooth, efficient* operation of this 4-in-1 Redington. Most important is the *Continuous Loading* of the product itself at a fraction of the high operating speed.

*Other Redingtons* are now under construction to handle the fast growing volume of Fitch products . . . *Another example* of how Redington's 49 years of experience and ingenuity are easing packaging problems for Industry . . . stepping up production . . . helping lower packaging costs.

F. B. REDINGTON CO. (Est. 1897) 110-112 So. Sangamon St., Chicago 7, Ill.

CARTONING • WRAPPING • SPECIAL PACKAGING

## REDINGTON

PACKAGING MACHINES

GREAT A & P TEA COMPANY • REMINGTON ARMS COMPANY • GOODYEAR  
TIRE & RUBBER CO. • STANDARD OIL COMPANY • HOWARD PAPER COMPANY  
INLAND MFG. DIV., G. M. CORP. • P. LORILLARD COMPANY • FRIGIDAIRE  
DIVISION • CHRYSLER CORPORATION • FIRESTONE TIRE & RUBBER COMPANY  
SHERWIN-WILLIAMS COMPANY • GENERAL ELECTRIC • WESTINGHOUSE ELECTRIC  
PROCTER & GAMBLE • F. W. COOK COMPANY • STERLING BREWERS • PET MILK  
COLGATE-PALMOLIVE-PEET COMPANY • SWIFT & COMPANY  
B. F. GOODRICH COMPANY

**INLAND BOXES  
BUILD GOOD WILL**

TEXAS • BORDEN  
QUAKER • FIBERGLAS CO.  
ROLLING • AMERICAN  
SINCLAIR • PRODUCTS  
& MYERS • EMERSON RADIO • LIGGETT  
SHOE COMPANY • PURITY BAKING COMPANY  
MEAD CORPORATION • NATIONAL CAN CORPORATION • HUFFMAN MFG.

**INSIST ON A**

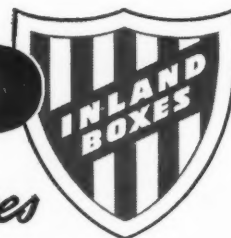
*Package by Inland*

PAPER COMPANY • GARDNER-RICHARDSON COMPANY • GENERAL CIGARS  
PALMER MATCH COMPANY • NATIONAL BISCUIT COMPANY • CANADA DRY  
CONTINENTAL CAN COMPANY • O'NEILL'S • FIBERGLAS CO. • QUAKER  
STATE OIL COMPANY • ROLLEY CORPORATION • AMERICAN ROLLING MILL CO.  
DIAMOND MATCH COMPANY • NESTLES MILK PRODUCTS • WILLIAMS COMPANY  
SINCLAIR REFINING COMPANY • CANADA DRY • EMERSON RADIO • BROWN  
SHOE COMPANY • HOLLYWOOD CANDY COMPANY • LINCOLN ENGINEERING  
JASPER DESK COMPANY • HUNTINGBURG FURNITURE COMPANY • WASHINGTON  
MFG. COMPANY • IGLEHEART BROTHERS • HOOSIER DESK COMPANY • ROPER  
PECAN COMPANY • CORNBLEET BROTHERS • METROPOLIS BENDING COMPANY  
TENNESSEE PRODUCTS CORPORATION • DERBY CONE COMPANY • ACME BOOT

**INLAND**

CONTAINER CORPORATION

*Corrugated Fibre Boxes*



INDIANAPOLIS, INDIANA • EVANSVILLE, INDIANA • MIDDLETOWN, OHIO • CINCINNATI, OHIO  
DAYTON, OHIO • CHICAGO, ILLINOIS • MILWAUKEE, WISCONSIN • DETROIT, MICHIGAN



**T**HIS year's Christmas tree lights made by Noma will feature wire insulation made from GEON. They will be safer because the insulation is self-extinguishing in case of fire. The strings will be lighter weight, easier to handle because the insulation is thinner, smoother, more flexible, than old-fashioned insulation. They will last longer because the insulation resists wear, aging, heat, and flexing—won't ever get gummy, crack,

or peel from the wire.

These properties, plus resistance to oils and greases, foods and chemicals, water, acids, mildew, sunlight, and most other normally destructive factors, have made versatile GEON the ideal material for literally hundreds of products in the home and in industry.

GEON can be pressure or injection

molded, extruded, calendered or cast into sheet or film, applied as a coating to textiles, fibres, and papers. Products made from GEON may be brilliantly or delicately colored, flexible or rigid, clear or opaque. While we make no finished products from GEON, we'll be glad to work with you on special applications. Just write Dept. L-11, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

## MODERN CHRISTMAS LIGHTS

Another interesting application  
for GEON raw materials

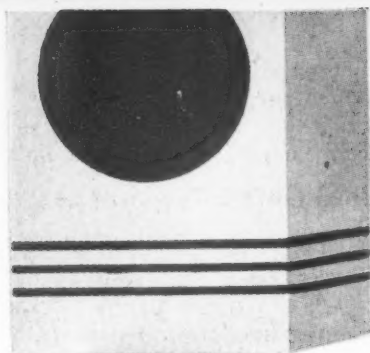


Wire manufactured by  
The Ansonia Electrical Division  
of Noma Electric Corp

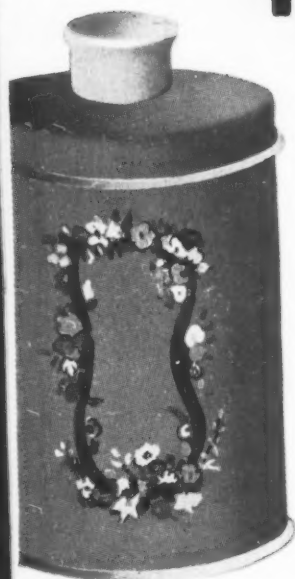
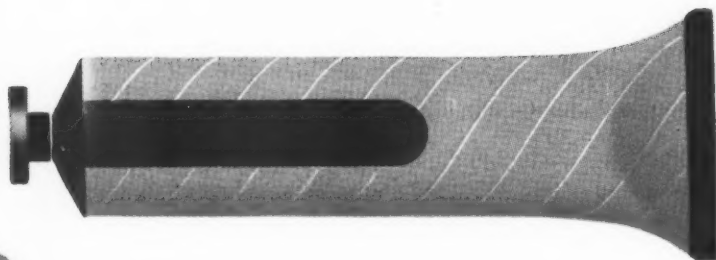


# B. F. Goodrich Chemical Company

A DIVISION OF  
THE B. F. GOODRICH COMPANY



## Gilding the Lily is a Big Business



Every good manufacturer, with justifiable pride of craftsmanship, believes that his product is the finest that determination... skill... research and modern production facilities can turn out.

But, without proper packaging, without fine display-design and choice of colors that are crisp, true and fast, the sale of even the finest of commodities may be retarded.

Sun Chemical helps the men who gild the lily. Inks and varnishes produced by its member companies glamorize tooth paste tubes, cardboard containers, foodstuff wrappers, tins for coffee or cosmetics, bags for sugar and flour, and a host of other items—make them easier to look at... easier to buy and sell... therefore more profitable.

Sun Chemical plants furnish materials for all kinds of printing, lithographing, varnishing, coating or finishing—on paper, cardboard, metal, or plastic surfaces.

Supplying vari-colored inks and varnishes for the billions of containers used by America, is but one phase of the activities of an organization pledged to progress—and busy creating it...

## For a Brighter Tomorrow



**CHEMICAL  
CORPORATION**

**SUN CHEMICAL CORPORATION**  
100 Sixth Ave., New York 13, N. Y.  
comprised of

**GENERAL PRINTING INK Division** — Newspaper Ink, Letterpress Ink, Lithographic Ink, Metal Decorating Ink, Packaging Ink, Printing and Lithographic Supplies.

**A. C. HORN COMPANY Division** — Paints, Varnishes, Enamels, Lacquers, Structural Waterproofing and Compounds, Floor and Roof Treatments, Product Finishes.

**GENERAL INDUSTRIAL FINISHES Division** — Industrial Finishes; Hudson Paints and Varnishes. C. A. Willey — Paints, Lacquers.

**WARWICK FINE CHEMICALS Division** — Pigments, Textile Water Repellents, Finishes and Sizes; Plastic Coatings, Detergents, Stearates, Microcrystalline Wax, Ink for Plastic Films.

**RUTHERFORD MACHINERY Division** — Lithographic Precision Cameras, Photo-Composing Machines, Vacuum Printing Frames, Metal Decorating Equipment.

**OVERSEAS Division** — Export; General Printing Ink Corporation of Canada, Ltd., A. C. Horn Company, Ltd.





# Merchandising Advantages of ANCHORGLASS Plain Round Jars

- 
- ★ Compact and easy to handle
  - ★ Impart no foreign taste or flavors to the contents
  - ★ Provide easy, quick access to contents
  - ★ Display products with all their colorful eye and appetite appeal
  - ★ Unused portions can be resealed and stored in original jar
  - ★ Create more impulse sales
  - ★ Women prefer glass packed products

**V**ISIBILITY—Protection—Convenience—three top consumer preferences in package selection—are outstanding properties of Anchorglass standard Plain Round Jars.

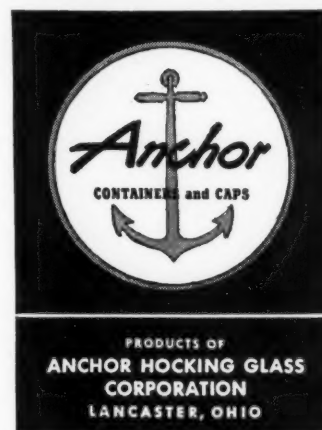
Anchorglass standard containers display your products with all their colorful eye and appetite appeal. They are most sanitary—provide greater protection to health. And Anchorglass containers, being inert, impart no foreign tastes or flavors. They protect the full fresh flavor of the con-

tents until consumed.

Anchorglass Plain Round Jars are compact, easy to handle, easy to open. Unused portions can be resealed and stored in the original jar. And they provide a visual inventory of the supply on hand.

Then, too, there are numerous production advantages obtainable with low-cost, strong, lightweight Anchorglass standard jars. Ask your Anchorglass representative for the complete story.

*Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.*





how many doors...

## TO THE GROCERY STORE?

A good package doesn't just "happen." It is the result of a step-by-step process that is designed to insure its final success as a self-selling, protective, and competitive unit.

Highly specialized departments each contribute their share to the final result. Creative Art . . . Laboratory Testing . . . Industry Experts . . . Technical Engineering . . . these are but a few of the steps or doors through which your Milprint designed package passed on its way to the consumer.



Printed Cellophane, Pliofilm, Glassine, Aluminum Foil, Cellulose Acetate, Vinyl, Lacquer coated and Laminated Papers in all forms, including Sheet Wraps, Rolls, Pouches, or Specialty Bags, Revelation Bread Wraps, Specialty Folding and Window Cartons, Counter Displays, Simplex Pie and Cake Units.

packages by

**MILPRINT Inc.**

PACKAGING CONVERTERS • PRINTERS • LITHOGRAPHERS

plants at Milwaukee, Philadelphia, Los Angeles, San Francisco and Tucson

PACKAGING HEADQUARTERS TO AMERICAN INDUSTRY

SALES OFFICES IN ALL PRINCIPAL CITIES



*for*  
**MODERN COMMERCIAL ROTOGRAVURE**

*Rotogravure*  
**HYROTO**  
*Presses*

**ROTOGRAVURE ENGINEERING Co.**

( A Subsidiary of Miller Printing Machinery Co. )

1117 REEDSDALE STREET

**PITTSBURGH, PENNSYLVANIA**

# MOTHERS VOTE 3 to 1 FOR BABY FOOD PACKED IN GLASS!



Mothers voted nearly 3 to 1 for baby food packed in glass in a recent national survey conducted by a noted public opinion analyst.\* Customer-preference for glass-packed food is the greatest sales *plus* in the food industry.

Here are the reasons women gave for preferring the modern glass package for this all-important purchase:



## SAFETY:

Food is cooked in own sanitary glass container—thus assuring absolute cleanliness and the full nutritional value. Food tastes better. Glass adds no taste of its own.



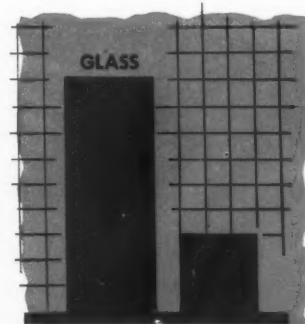
## CONVENIENCE AND ECONOMY:

Busy mothers can heat food, serve it and store left-over portions in glass container. *No wasted food—or time...* double economy! Packages are so easy to open—so easy to reseal.



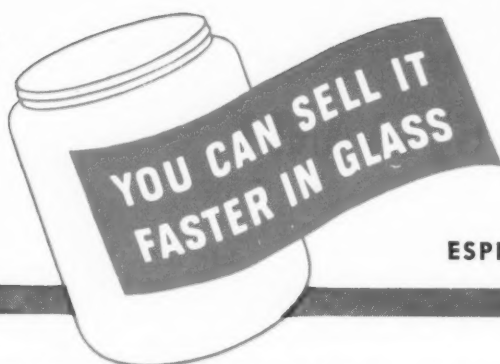
## VISIBILITY:

Mothers trust what they can see. Color, amount and goodness shine through gleaming glass. Glass adds spick-and-span sparkle to shelves... shows when to buy more.



## PREFERENCE:

More and more mothers are choosing baby food packed in glass-clean containers. The 3 to 1 preference is increasing! A vote like this makes preference demand!



Duraglas containers have all the advantages of glass packages and more. Their lightweight strength assures easy handling... their trim proportions mean compact storing... their natural beauty makes sparkling displays! Their nationally advertised name is known and respected by consumers.

You sell more, need less selling time... with food products packed in glass containers—Duraglas Containers!

\*Name supplied upon request

ESPECIALLY IN **Duraglas** CONTAINERS

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • Branches in Principal Cities





## CURTAIN RAISER TO THE PACKAGING AGE

Elisha Waters, a Vermont druggist was among the first to discover the sales appeal of good packaging. In the 1860's, when many druggists put up their own preparations, Mr. Waters hit upon the idea of selling his cough mixtures and other products in paperboard boxes. This innovation met with great success; Waters' brands sold like hotcakes and he became

prosperous. • Refined and perfected during the succeeding decades, the modern folding carton has retained the most important feature of Waters' primitive box—that of selling products fast and profitably.

**UNITED PAPERBOARD COMPANY, INC.**  
PAPERBOARD FOLDING CARTONS  
285 MADISON AVENUE NEW YORK 17, N. Y.

A complete series of these illustrations consisting of 12 pictures and carrying no advertising, will be sent on request.





# COMING AT YOU—

## PLASTIC MOLDED JAR CLOSURES

A DIVERSITY  
OF COLORS, STYLES  
AND SIZES INCLUDING  
STANDARD 33, 38, 43,  
45, 48, 51, 53, 58, 63,  
70, 83 and 100 MM.

**Right Now!** That's when we can make delivery on these smart, gem-like molded closures—for jars, bottles and other containers. Probably no need to tell you, too, that they're durable, easy to apply, rustless, and resistant to oils, chemicals and corrosives. You, as well as your dealer, know from past experience how good Mack plastic closures are, and how they enjoy wide consumer acceptance. The important thing right now is that you can get them **RIGHT**, and you can get them **NOW!** Samples and quotations on request; write to Mack Molding Company, Inc., 160 Main Street, Wayne, N. J.

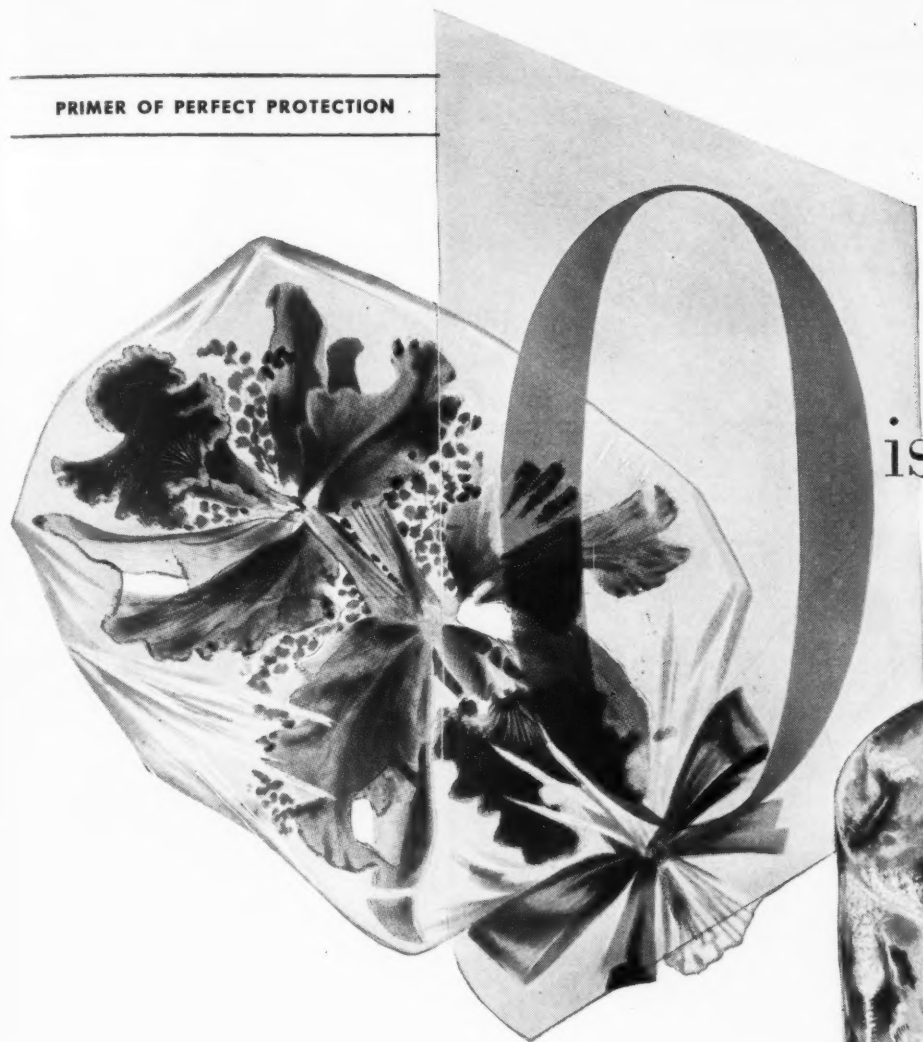
**Mack**  
**MOLDED**  
**EXCELLENCE**



SALES OFFICES: NEW YORK CITY, CHICAGO, DETROIT, INDIANAPOLIS

BOSTON, ST. LOUIS

PRIMER OF PERFECT PROTECTION



**FRESH**  
is for Orchids

brought from jungle to corsage at full bloom of fragile beauty



and for Oysters

sealed with full-flavored  
January goodness for July  
enjoyment

Here are two more examples of the many miracles of **PLIOFILM** packaging, now bringing new quality and sales appeal to a wide range of products.

★ You see, this shimmering, transparent wrapping has the unique advantage of locking in flavor-giving juices, healthful vitamins, natural color, in any perishable — fresh or frozen — *because it is truly moistureproof and liquidproof!*

★ It does this so well, fresh fruits and vegetables can now be *naturally* ripened and brought to market with their fresh-picked goodness intact — without fear of spoilage. And it protects rare flowers from wilting. ★ On frozen foods, **PLIOFILM** prevents dehydration, shrinkage and “freezer burn.” Its *liquid-tight* seal is completely secure against leakage. Fruit juices won’t seep out during sudden defrostings, and damage equipment or spoil other products. ★ All this has been proved in countless tests by leading food packers and agricultural colleges.

**PLIOFILM** is now available again for food packaging — that’s why so many choice eatables are tasting better than ever today. For information, write: Goodyear, Chemical Products Division, Pliofilm Dept., Akron 16, Ohio.

**Pliofilm**  
A PRODUCT OF GOODYEAR RESEARCH



Pliofilm — T.M. The Goodyear Tire & Rubber Company



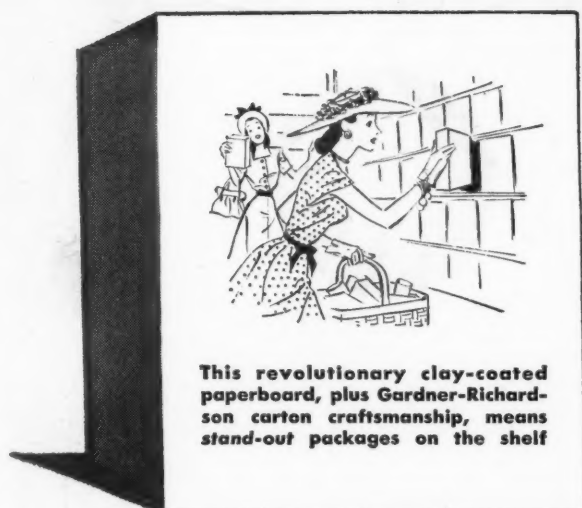


**It's that**



# eye-catching quality

WHICH MAKES MORE HANDS REACH FOR CARTONS OF COATED LITHWITE\*



**M**ANY LEADING MERCHANTISERS found just what they'd been looking for when Gardner-Richardson introduced *Coated Lithwite* seven years ago—a practical way to up-grade their packages. And since then, billions of smart, crisp cartons made of this revo-

lutionary *clay-coated* board have been produced by the exacting craftsmen in Gardner-Richardson's plants.

Gardner-Richardson alone makes *Coated Lithwite*. Proved and improved for seven years, this whiter, brighter board comes from the machine with a super-smooth *clay-coated* surface ready for printing. It holds colors brilliantly, has exceptional folding, bending, scoring qualities... takes a tight seal. Cartons of *Coated Lithwite* are the answer to the mass-merchandiser who wants quality-appeal in his package.

Production of cartons of *Coated Lithwite* is currently sold up. But a project to increase production to help meet the tremendous demand is now under way.

\*Reg. U. S. Pat. Off.

## Cartons of Coated Lithwite

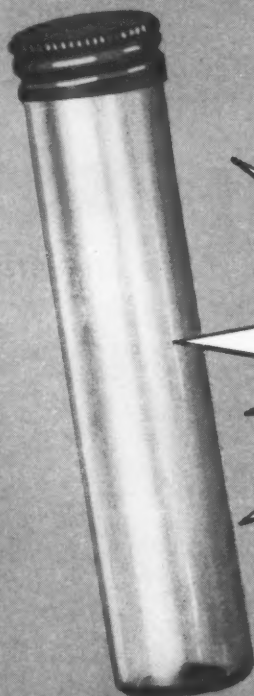
THE GARDNER-RICHARDSON CO. • Manufacturers of Folding Cartons and Boxboard • Middletown, Ohio

Sales Representatives in BOSTON • CHICAGO • DETROIT • NEW YORK • PHILADELPHIA • PITTSBURGH • ST. LOUIS

# Molding for Many Markets —

## SOLVENT Molding for Ideal containers —

SHATTERPROOF — SEAMLESS —  
FEATHERLITE — IMPRINTED DURING  
MANUFACTURING PROCESS



## Use *Clearsite*\* containers

\* Reg. U. S. Pat. Off.

for DRUGS — TOOLS — SUNDRIES  
GAUGES — HARDWARE — NOVELTIES  
DENTAL and SPORTING GOODS —  
SEEDS — INSTRUMENT PARTS — LUBRI-  
CANTS — OINTMENTS and SPECIALTIES

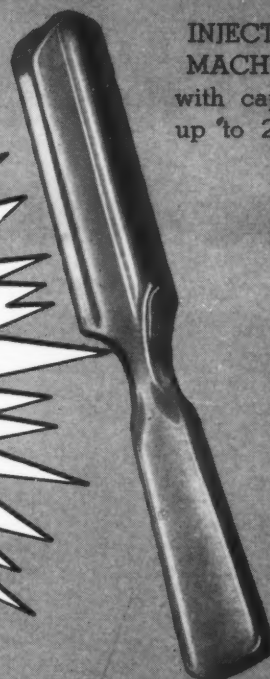
**CLEARSITE** — The Safety Base Plastic

Write to CONTAINER DIVISION —

## INJECTION & EXTRUSION in endless variety

We do custom molding in volume  
for clients who value quality plus  
production performance.

INJECTION  
MACHINES  
with capacity  
up to 22 oz.



## EXTRUSION MOLDING

To customer's specification, e.g.,  
ROD, TUBING, TRIM, etc. MANU-  
FACTURERS OF VICTOSEAL — one  
of America's outstanding Vinyl  
materials.

Write to INJECTION MOLDING  
& EXTRUSION DIVISION —



# CELLUPLASTIC CORPORATION

PLASTIC CONTAINERS  
AND  
PLASTIC PRODUCTS

50 AVENUE L

NEWARK 5, N. J.

NEW YORK OFFICE — 630 FIFTH AVENUE

**Packaging for  
Your Future Sales**

**Gaylord  
Boxes**

Corrugated and Solid Fibre Boxes  
Folding Cartons  
Kraft Grocery Bags and Sacks  
Kraft Paper and Specialties

Containers by Gaylord will assure you the advantages of correct functional design, adequate protection in shipment — and perfect color harmony for greater sales appeal and prestige.

**GAYLORD CONTAINER CORPORATION, General Offices: SAINT LOUIS**

*Standard of the  
Packaging Industry*

New York • Chicago • San Francisco • Atlanta • New Orleans  
Jersey City • Seattle • Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Jacksonville • Columbus • Fort Worth  
Tampa • Cincinnati • Dallas • Des Moines • Oklahoma City  
Greenville • Portland • St. Louis • San Antonio • Memphis • Kansas City • Bogalusa • Milwaukee • Chattanooga • Weslaco • New Haven  
Appleton • Hickory • Greensboro • Sumter

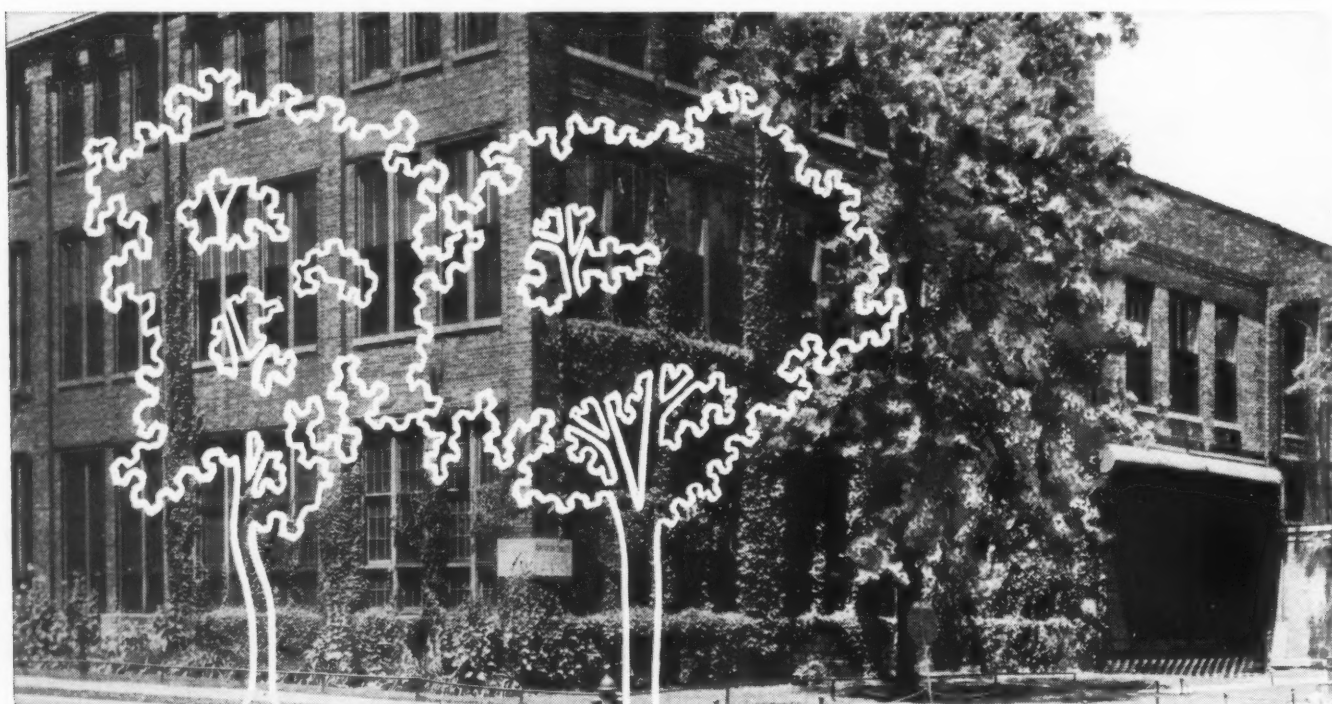


# LESS ELM TREES BUT MORE PEOPLE . . . A SHORT SKETCH OF 25 YEARS OF RESEARCH



(Above) 1921. FORMER machine shop, Maywood, Ill., which had just become new home of Canco's Central Research Laboratories staffed by 15 scientists and equipped with \$49,000 worth of research tools. Behind them, the scientists had many pioneering achievements in food processing. High light of early period (back to 1907) was development of "sanitary-style" can. Canning industry greatly benefited by this important change in can style. It is one of the milestones in the food industry.

(Below) 1946. SAME building in Maywood. One elm of the three shown in 1st picture remains to shade the comings and goings of 151 scientists working with \$583,000 worth of research equipment. In 25 years Canco's research has following high lights: Development of C-, meat-, and special-enamels; invention of beer can, paper milk container, vacuum coffee can, frozen food container; played a large part in the development of cold-reduced plate, wartime enamels, and the electrolytic process of tin plating.



AMERICAN CAN COMPANY • NEW YORK • CHICAGO • SAN FRANCISCO



No Other Container Protects Like the Can

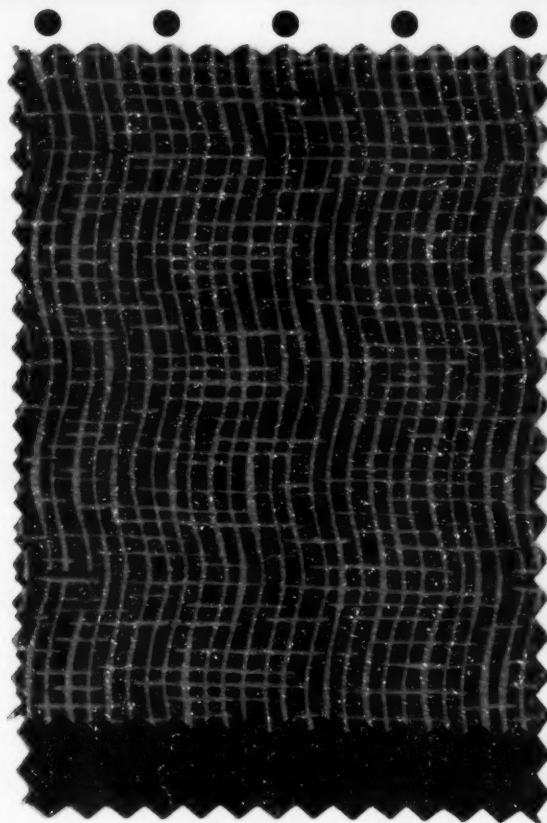
This is

# FABCOSE

*... decorative ...*

*... adaptable ...*

FABCOSE is easy to clean, easy to sew. And FABCOSE is durable... resisting wrinkles and creases... water and heat. It is soil resistant, too. FABCOSE will enhance your product... make your package. Samples mailed on request.



# FABCOSE

SALES DIVISION

EMPIRE STATE BUILDING, NEW YORK 1, N. Y.

*A Division of Electro-Technical Products Inc., Nutley, N. J.*

TAKES THE "BUGS" OUT OF TAPE MOISTENING

"SPOTTY"  
MOISTENING  
Tape gets a lick  
and a promise

HI N. DRY  
Tape has no  
stick-to-tiveness

THE  
OLD  
SOAK  
Tape  
much  
too wet

# A Automatic M Moistening C Control

safeguards shipments, speeds sealing, improves appearance!

Automatic Moistening Control is a patented feature of Counterboy tape machines. Assures correct moistening ... automatically, instantly ... and safe, fast sealing.



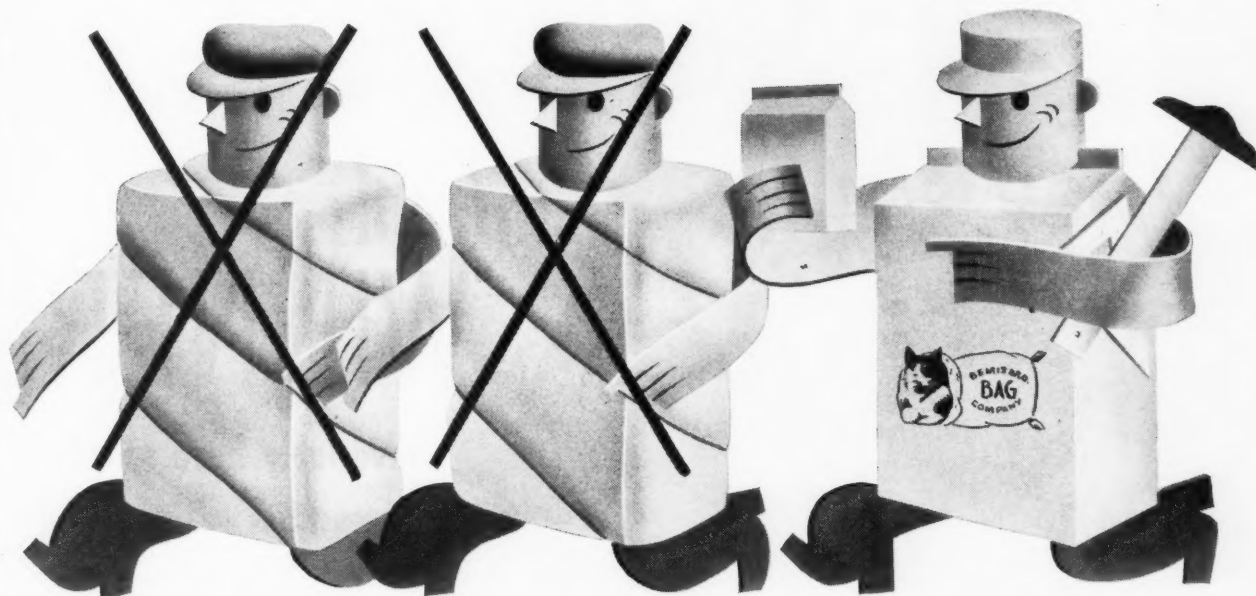
*Better Packages, INC.*

SHELTON, CONN.

World's Largest Manufacturers  
of Tape Dispensers



Are you using Three men on a wrapping job



when a special paper bag  
will do the work of two?

Yes, if you now wrap your product in paper, there is a good possibility that Bemis can develop a bag for your product that will give you savings in time, labor and materials in your packaging department . . . perhaps save the services of two or more men now engaged in wrapping.

**Call Bemis Paper Bag Specialty  
Division Today**

The same Bemis Packaging Specialists whose ingenuity developed bags for the products illustrated, will study your operations upon request. Their recommendations may result in important competitive advantages and savings in packaging costs. Mail coupon for immediate action.

**SUCH PRODUCTS AS THESE—NOW WRAPPED IN PAPER  
—MAY BE PACKED IN BAGS**



Trees can now be shipped in special paper bags, instead of being wrapped. Advantages: Faster, easier handling; moisture around roots is retained; longer, safer shipments are possible.



Wallboard—Six sheets, 4' x 12', can be slipped into a special paper bag in one simple operation. Advantages: Savings in labor, time, materials, floor space in your packing departments.



100-Pound Cubes of Firebrick—A special paper bag makes this hard-to-wrap products easier and cheaper to package. Other advantages: Original moisture retained longer; quality and shelf-life prolonged; return of goods minimized.

**BEMIS BRO. BAG CO.**



PAPER BAG SPECIALTY DIVISION • 1054 S. VANDEVENTER, ST. LOUIS, MO.

**COUPON**

Gentlemen: Please have a Bemis Packaging Specialist call on me. I'm interested in a special paper bag for \_\_\_\_\_  
(product)

Name \_\_\_\_\_

Firm Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



# "WINNERS

invariably have speed . . .  
precision . . . and skill"  
... says Robert Gair

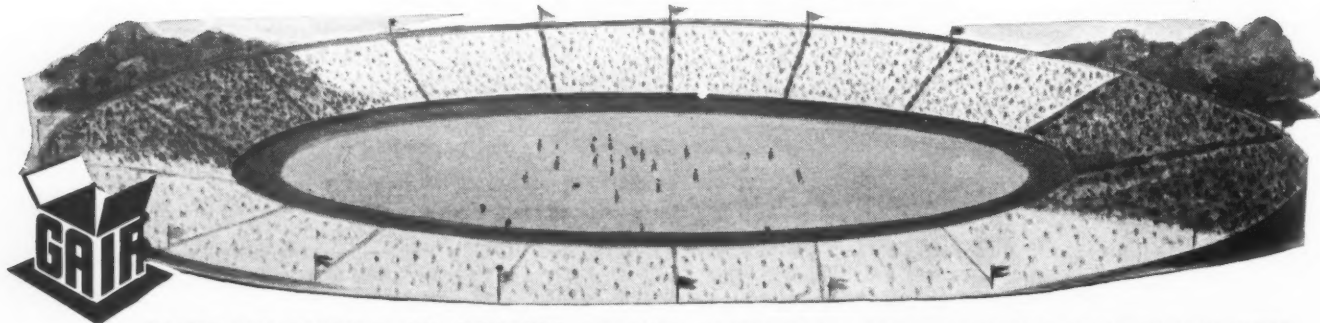
High speed packaging machinery must have the uniform precision of a "tailor made" carton...folding cartons that embody the technical skill and "know-how" so consistently

displayed by ROBERT GAIR over a period of more than eighty years.

**GAIRanteed** cartons are consistently WINNERS in fields of keenest competition.

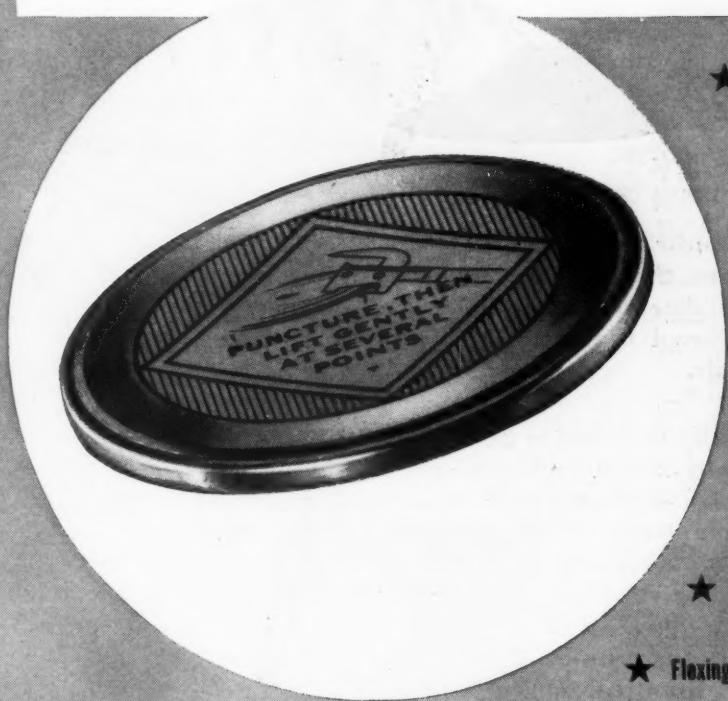
28 PHOTOGRAPHS OF POST-WAR AUTOMATIC PACKAGING MACHINES

Write for 22-page descriptive brochure, featuring 28 photographs of POST-WAR automatic packaging machines.



ROBERT GAIR COMPANY, INC., NEW YORK - TORONTO • PAPERBOARD - FOLDING CARTONS - SHIPPING CONTAINERS

## The Ideal Seal for Thin Blown and Thin Pressed Tumblers— the Anchor T Cap



- ★ Provides dependable hermetic or vacuum seal
- ★ Side seal overcomes common tumbler top edge imperfections
- ★ Positive, mechanical, permanently effective seal
- ★ Internal pressure will not loosen the seal
- ★ Suitable for hot or cold packing, and sterilization after sealing
- ★ Easy to remove and reseal
- ★ Flexing panel allows for expansion of contents.

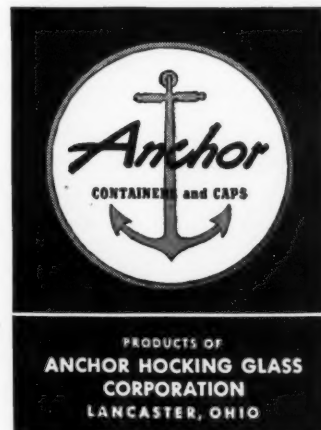
**T**HE Anchor T Cap is the most dependable tamper-proof seal known for use on all styles of thin blown and thin pressed tumblers . . . including those having straight, flared or bead finish sides. It gives a positive, permanently effective seal under all circumstances.

Its mechanically formed side seal overcomes top edge imperfections and variations common to thin blown tumblers, particularly, thus assuring uniform sealing. Internal pressure caused by sterilizing or by

exposure to sun or heat will not loosen the seal or force the cap off the container.

Yet the Anchor T Cap is easily removed by gently lifting at several points around it with an ordinary hook opener. It is suitable for hermetic or vacuum sealing, hot or cold packing and for sterilization after sealing . . . the ideal closure for jams, jellies, meats, peanut butter, pickles, preserves and many other products packed in thin blown and thin pressed tumblers.

*Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.*





**THE GOATS**



**OF KASHMIR**

In far off Kashmir, in India, they have very special goats . . . a type that is found no other place except Tibet. What makes these goats so special is a layer of light, delicate wool that grows beneath their outer coat of wiry hair.

This exceptionally fine wool is gathered by the natives with utmost care, since each goat produces but two or three ounces of wool each year. From this wool the famous Kashmir shawls are woven by hand, by highly skilled natives . . . a tedious task that may take two or three men nearly a year. The quality of both the fabric and craftsmanship of these shawls is so highly regarded that it is not unusual for them to sell for as much as fifteen hundred dollars.

In the field of glass containers Carr-Lowrey too has established a reputation for superiority. Strict adherence to the highest standards in glass manufacture for more than 57 years has earned the confidence and acceptance of a host of quality minded buyers.

**CARR-LOWREY  
GLASS CO.**

*Factory and Main Office: BALTIMORE 3, MD. New York Office: 500 FIFTH AVE. (18) Chicago Office: 1502 MERCHANDISE MART (54)*

DESIGNED TO WIN THAT

*Second Look*



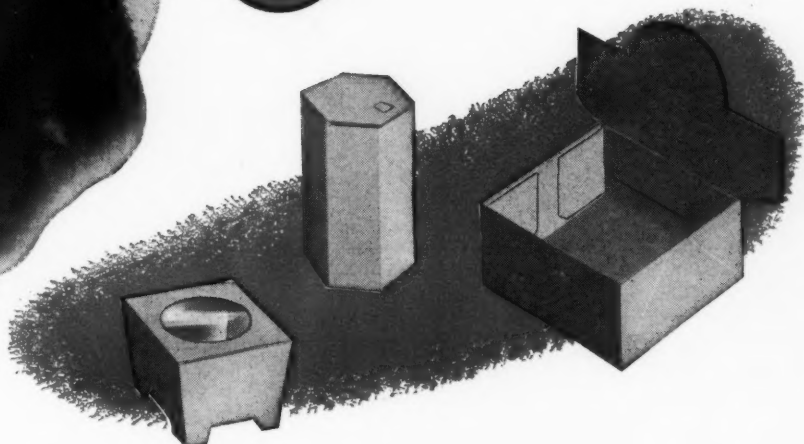
When a shopper turns her head for a second look at your package on shelf or counter you're that much closer to another sale.

There is no single road to the eye appeal that strengthens sales appeal.

It may be an unusual shape, a window type carton, a sparkling color effect, or an arresting counter display.

That's why it takes resourcefulness combined with complete facilities for research, development, manufacture of board, conversion, and testing to provide the *best* answer to your individual problem.

That's why smart merchandisers of packaged products are finding the answer in our **PLANNED PACKAGING.**



**THE OHIO BOXBOARD CO.**

RITTMAN, OHIO

Manufacturers of paper board, folding boxes, corrugated and fiber shipping containers, and converted specialties  
SALES OFFICES: RITTMAN • AKRON • CLEVELAND • CINCINNATI • PITTSBURGH • NEW YORK • CHICAGO  
Capacity 500 tons daily

★

# You'll never know what you've been missing

*Until you try*

**American Anode latices and mixes**

*for coating and impregnating paper...*

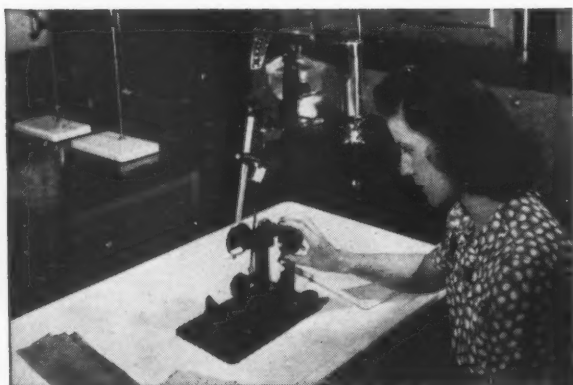
Many paper chemists and engineers haven't had the chance to learn of the remarkable progress made recently in the field of coating and impregnating paper with latices and water mixes. They haven't had a chance to discover that the use of American Anode latices and mixes in a surprisingly large number of cases will result in a *better* product at a *lower* cost.

That's why we hope you will tell

us what you are doing and how you are doing it. Give us the opportunity to work with you on standard products as well as new developments. We think that we can help you in a way that you'll like.

You'll like the inherent safety features of water systems, too; no dangerous, explosive solvents; no cumbersome and expensive recovery systems.

Latices and mixes of natural and synthetic rubbers, GEON, HYCAR, neoprene, and Saran are available from our bulk storage. For more information about the *modern* way to coat and impregnate paper, please write Department AC-11 American Anode, Inc., 60 Cherry Street, Akron, Ohio.



*The American Anode laboratory in Akron is equipped with the latest and most modern paper testing equipment, and is staffed with people who know how to use it.*

# AMERICAN ANODE

INCORPORATED

**NATURAL AND SYNTHETIC RUBBER LATICES, WATER CEMENTS AND SUSPENSIONS**



ou  
ity  
ad-  
ts.  
a

ty  
no  
no  
ry

nd  
R,  
ble  
in-  
to  
use  
an  
on,

NS





THIS IS A SAMPLE OF 30 LB. BRIGHT DARK BLUE EMBOSSED NUGGET



STAMPED BY  
THE PEERLESS PROCESS



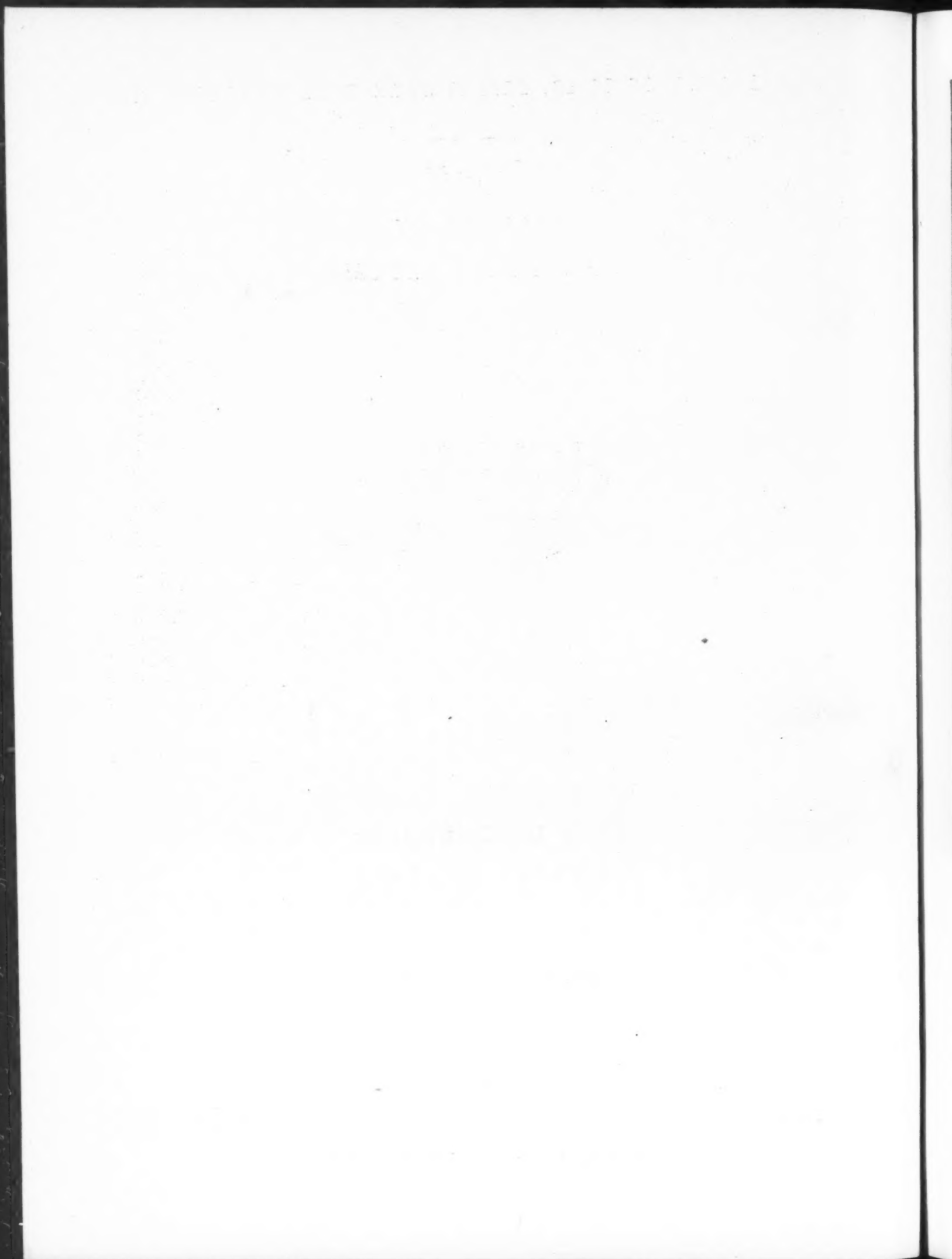
## Holyoke Foil

WIDE COLOR RANGE  
PLAIN OR EMBOSSED  
DIFFERENT WEIGHTS

•  
WRITE FOR SAMPLES

Holyoke Coated & Printed Paper Co., Inc.  
129 Bleecker Street • NEW YORK 12







## **TOPS IN THE FIELD!**

O-I closures are tops for protection . . . tops for package distinction!

Each year, precision machines produce millions and millions of closures in both plastic and metal . . . in business-like blacks and browns and dressed-up pastels. High Owens-Illinois standards assure maximum

strength and uniformity. Years of research and manufacturing experience assure low-cost, high-speed production.

Let us discuss your special requirements with you and help you make a selection of a closure—either plastic or metal—that will be *exactly* right for your package.

## **CLOSURE DIVISION**

**OWENS-ILLINOIS GLASS COMPANY**

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

SPECIALTY PAPERS

LAYOUT PRINTED  
PACKAGING  
PAPERS

GIFT WRAPS

# DECOTONE PRODUCTS DIVISION

CUSTOM-CREATES PACKAGING MATERIALS FOR SPECIFIC PRODUCT NEEDS

PACKAGING PAPERS

MOISTURE-VAPOR PROOF PAPERS

PROTECTIVE COATED SPECIALTIES

PRINTED & EMBOSSED BOX WRAPS

PRINTED TRADE MARK PAPERS

LAMINATED PAPERS

HEAT-SEALING PAPERS

*and Many Others*

# DECOTONE PRODUCTS

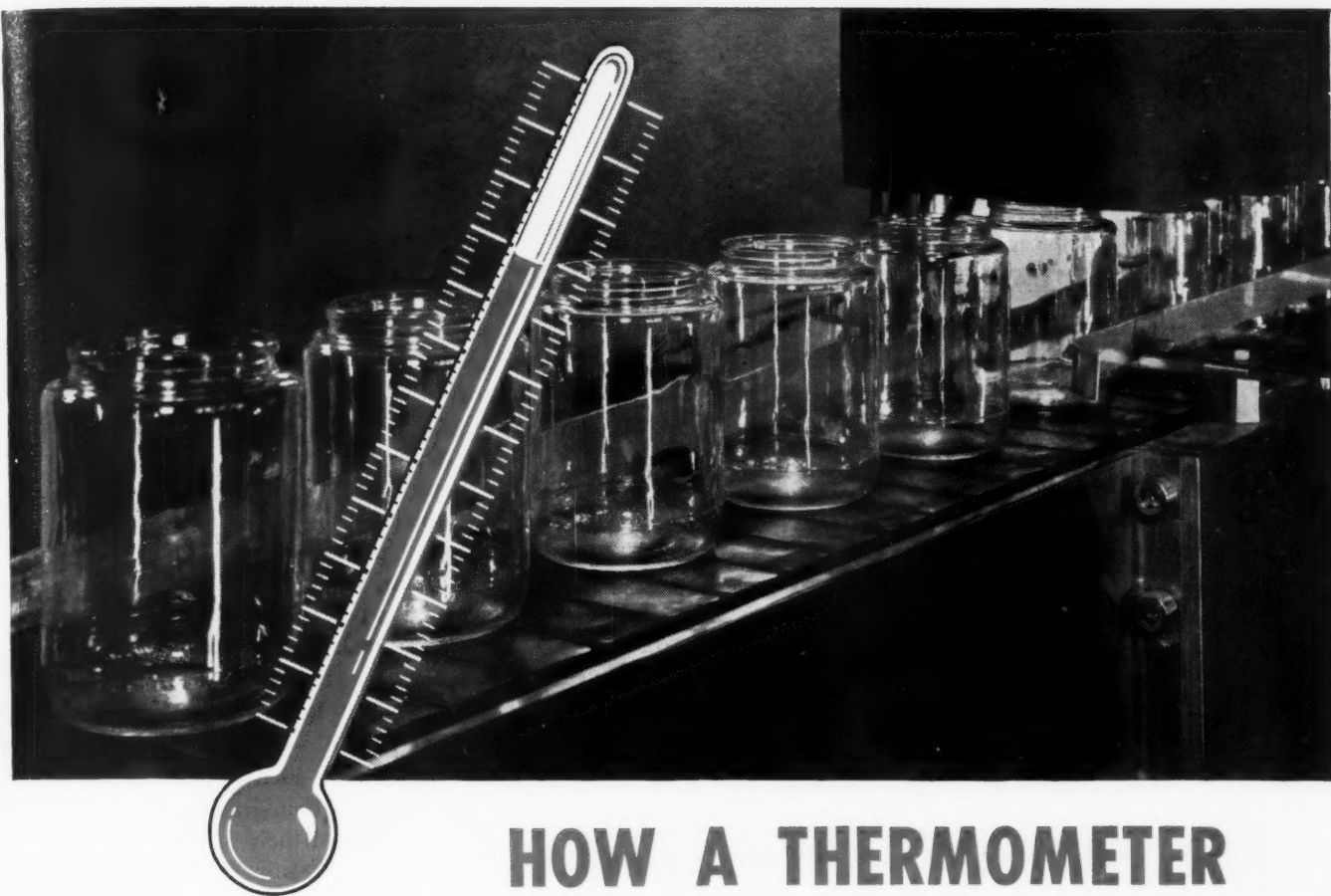
DIVISION

## Fitchburg Paper Company

PACKAGING PAPERS *Converted Papers* SPECIALTY PAPERS

FITCHBURG, MASS.





## HOW A THERMOMETER SOLVED A GLASS PROBLEM

**Why should a bottle** and closure which had been performing satisfactorily on the filling line for six months suddenly start giving trouble?

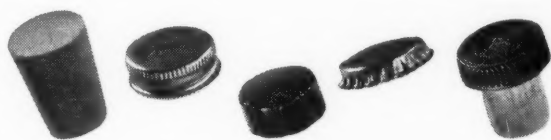
This was the problem faced by one of Armstrong's customers when a heretofore satisfactory package unexpectedly developed heavy "leakers" and breakage. When study failed to find the cause, Armstrong was asked to re-check the glass container and closure. Both were found to be of the same high quality as the earlier production, which had performed perfectly.

An Armstrong technician re-checked the customer's filling line from start to finish, examined the equipment, found everything in apple-pie order. Puzzled, he asked several questions—then suddenly whipped out a pad and pencil, scribbled a few figures, and said, "If you'll put 2% less liquid in your glass containers, your troubles will end!" And they did!

The solution was simple. The bottles were filled in a room without heat. During the summer and fall, when the operation started, everything was all right. But in the winter, the cold liquid in the bottles expanded as it came into heated rooms and caused the leakers . . . until the proper head space was allowed for expansion.

Not every glass packaging problem is as simply solved as this one was. But whatever your problem, you're sure of the best in technical advice when you bring it to Armstrong. An unusually large staff of experts in Engineering, Production Design, Package Design, Traffic, and pure and applied science is constantly on the job to make sure you get the best possible glass and closure service.

For full information on any of Armstrong's glass or closures, call your Armstrong representative, or write direct to Armstrong Cork Co., Glass and Closure Div., 5911 Prince Street, Lancaster, Pa.



One of America's Finest Photographers

If you want direct color photography, the answer is Edward Patston. His small camera and soft lighting make his pictures so beautiful that they are more common in his color camera. Rather than direct sunlight, he is the master of all types of advertising photography.

★ EDWARD PATSTON

Bettina Bolegard  
Conover Model  
PHOTO BY  
Edward Patston

DRINK  
**Dr. Pepper**  
GOOD FOR LIFE!

19 MARCH 47

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

19 APRIL 47

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## Pretty . . . plus!

Of the making of calendars, there is no end. Of pretty girl calendars, ditto . . . from Mona Lisa reproductions to the 98% nude jobs that ogle the boys in the boiler factory.

"Dr. Pepper", the soft drink leader in the South, and spreading like a Southern accent, wanted a pretty girl calendar that was—well, different. We began, as usual, with the audience.

Among parents with unimpaired ears, it is no secret that in the junior jukebox set which swigs millions of gallons of "Dr. Pepper" per season . . . pretty models are celebrities, and modeling a much more glamorous career than ushering in a movie or selling candy in the five-and-ten . . . And photography among teen-age intelligentsia is a runner-up to swing.

**A**RMED with such basic data, we asked six well-known photographers to contribute favorite shots of their favorite models . . . reproduced models in full colors, with the photographers' pans and plugs in black. Model and maestro put personality and news into calendar pages that got a lot of looking and extra discussion . . . plus plenty of advertising for "Dr. Pepper".

Lots of lithographers print pretty girl pictures . . . but only ideas make displays do more than fill space, deserve more than a passing glance. If you like displays that do more business, we'd like to do business with you.

**Einson-Freeman Co., INC.**

*Pretty Plus Lithographers*

Starr & Borden Aves., Long Island City, N. Y.



VIRGINIA KAVANAGH  
Photo by George Greb

MADELON MASON  
Photo by George Hurrell





## HE MAKES PAPER PROFITS THAT YOU CAN BANK ON

Paper can make money for you . . . and the Mead Paper Man can make the paper that can make the money for you. He's the modern research laboratory of the Mead New Products Division, devoted exclusively to the development of *functional* papers to protect your products from the ravages of heat, cold, humidity, vapors, gases, greases, or whatever other gremlins may threaten them in the course

of manufacturing, packaging, warehousing, distribution, or merchandising. But the Mead Paper Man is no Quiz Kid. He doesn't know all the answers. No one does. Behind him, however, are the full facilities and resources of one of America's most versatile paper manufacturers, now rounding out its first full century of experience. You need a *functional* paper? Write to the Mead Paper Man.

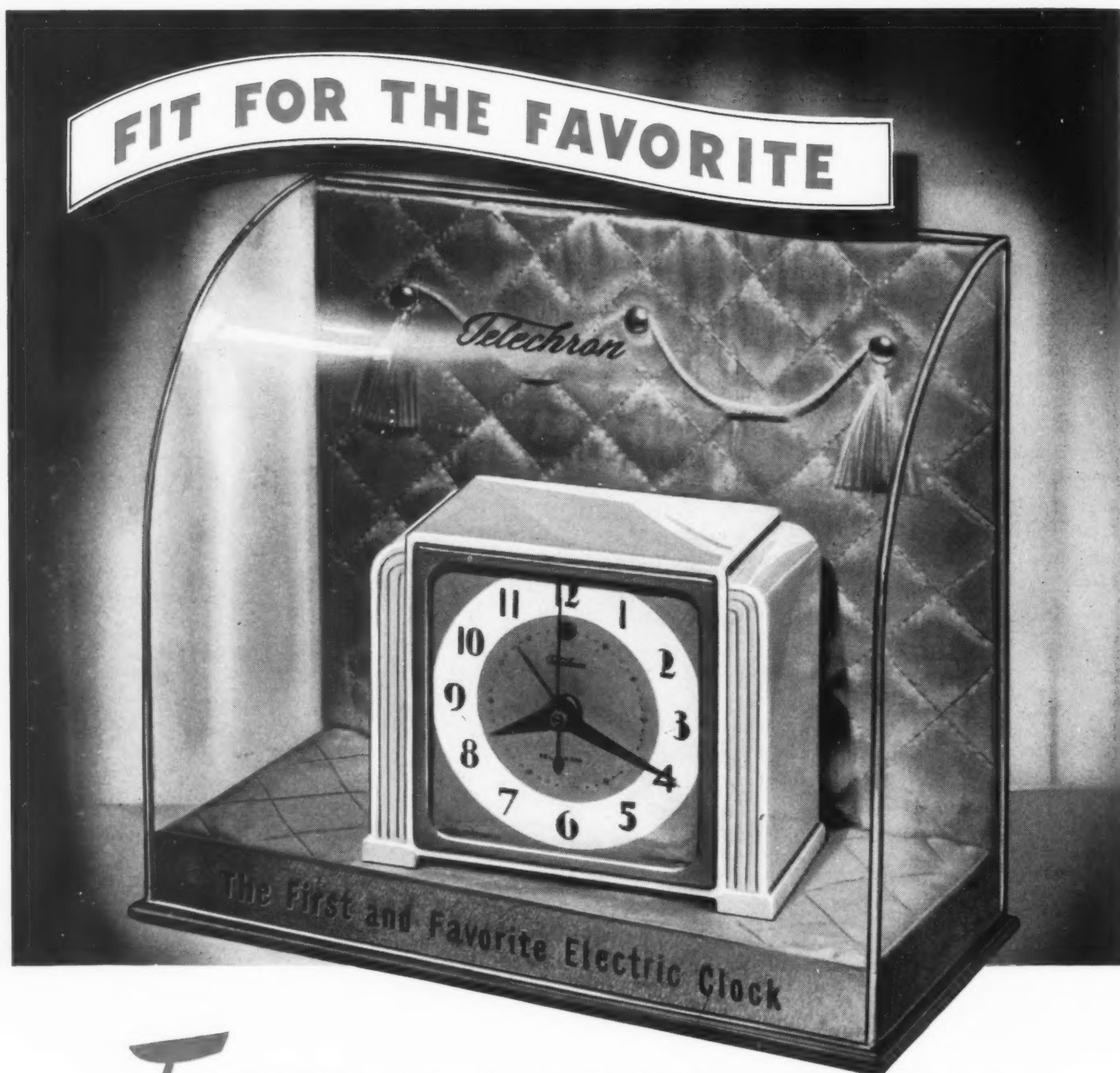
### NEW PRODUCTS DIVISION

THE MEAD CORPORATION

CHILLICOTHE, OHIO

NOVEMBER • 1946 35





**T**his is the handsome package in which America's favorite time-piece greets the post-war world.

Telechron chose Shaw-Randall to produce this rich combination of crystal clear acetate and colorful fabric as a proper setting for this famous clock.

As a display case and a gift package this beautiful visible container plays an important part in Telechron's advertising and merchandising plans.

Shaw-Randall offers you complete facilities for combining cardboard, acetate and fabrics in containers that add value to your product.

## SHAW-RANDALL CO.

DESIGNERS and CREATORS of VISIBLE PACKAGES

PAWTUCKET • RHODE ISLAND

A DIVISION OF SHAW PAPER BOX COMPANY

SALES REPRESENTATIVES

Fred Mann & Co., New York;

H. B. W. Snelling, Boston;

L. T. Swallow & Associates, Detroit



**1883**

When bustles were bustles, Thilmany Paper Company was founded; producing ground wood papers and M. F. Krafts.



**1895**

"The Bertha" was new and so was M. G. Kraft. Thilmany produced it printed and later introduced machine marking.



**1908**

When the "walking dress" was popular, Thilmany pioneered the manufacture of Glassine and Greaseproof papers.

when our girls made "fashion history"...

**Thilmany** *developed functional papers for modern packaging to-day!*



**1913**

"Rakish" hats complimented draped skirts; and Thilmany developed waxed papers for moisture-vapor protection.



**1919**

Milady's skirts rose higher with the peace clouds; and this year Thilmany originated waterproof asphalt papers.



**1922**

Waistlines reached a new low, but Thilmany reached a new high in product versatility with specialty paper bags.

*We're not new in Functional Papers*

**Thilco** *Functional*

**THILMANY**  
PULP & PAPER COMPANY  
KAUKAUNA • WISCONSIN

**PAPERS**

**GLASS**

**PLASTIC**

**PRINTING INKS FOR THOSE**

# New Hard-to-Print Surfaces

**FOIL**

**GLASSINE**

**CELLOPHANE**

**PLASTIC AND GLASS INKS** For printing by dry offset, silk screen, aniline, gravure, or letterpress on various shapes and types of plastic and glass. Plastic and Glass Inks are designed to produce maximum adhesion to packaging surfaces, resist solvents, and other deteriorants to which plastic and glassware are subjected.

**ANILOX 100% Pigment Inks** For aniline and anilox type presses, a 100% pigment ink which bonds firmly to the non-porous surfaces. Anilox is easy to use, low in cost, eliminates slip-sheeting and produces better fastness to light and sharper, tack-free reproductions on plain and coated papers, board, glassine, acetate, foil and other materials—even the more highly plasticized grades of cellophane.

**OTHER IPI AIDS TO BETTER PACKAGING**

**FOR COLORING PLASTICS**—IPI has developed a dip solution for coloring thermo-plastic materials, including containers. Faster, easier! Can be used at room temperatures.

**VAPORIN\* INKS**—Instant drying, retain their body throughout press run. Eliminate slip sheeting . . . For bag printing where high press speeds are essential.

**VAPOSET\* INKS** — The closest to an odorless printing ink yet achieved.

Sets almost instantly on application of steam or completely vaporized water.

**FOR OFFSET LITHOGRAPHY** — Improved offset inks, a new litho drying stimulator, all-purpose offset blankets, and a complete line of lithographic supplies.

**IPI COLOR CONTROL SERVICE**—A special service that sets up color standards and offers a method of maintaining color uniformity for package printing.

**KEEP IN TOUCH WITH**

**ip**

**INTERNATIONAL PRINTING INK**  
DIVISION OF INTERCHEMICAL CORPORATION  
EMPIRE STATE BUILDING, 350 FIFTH AVENUE, NEW YORK 1, N.Y.

REG. U. S. PAT. OFF.

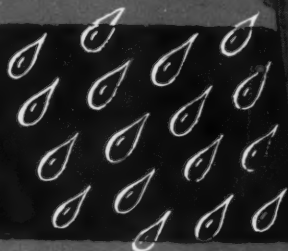


# Can't beat those

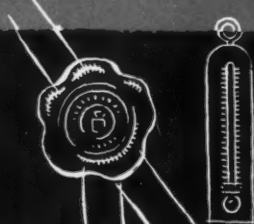
## PROTECOTE food wraps



**NO ODOR  
NO TASTE**



**MOISTURE PROOF**  
Resistant to changes  
in temperature and  
humidity.



**HEAT-SEAL** at cheese  
packing temperature.



**GOOD CLING** to cheese  
—adequate flexibility  
and adhesion at low  
temperatures.



**HIGH  
STRENGTH**



**ATTRACTIVE  
TRANSPARENCY**

Cheese Wraps processed with PROTECOTE meet all requirements which are necessary to preserve the factory freshness of processed cheese. • Available with or without printing. Samples and quotations on request.

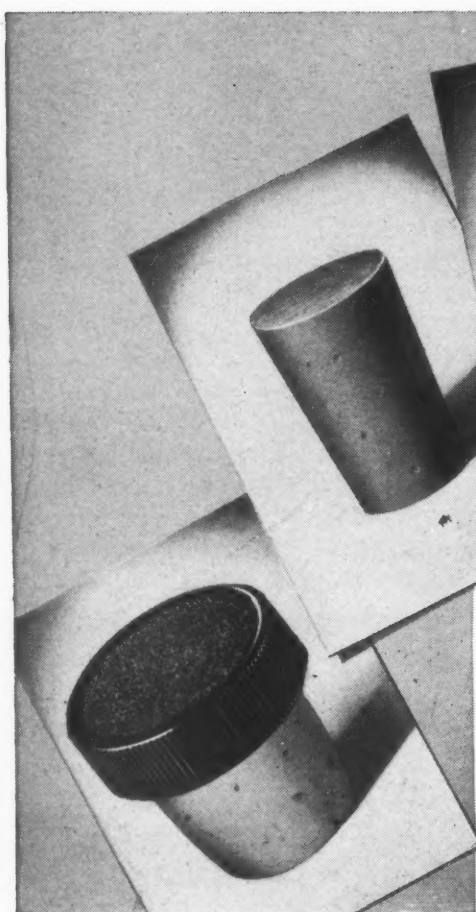
### GENERAL FELT PRODUCTS

DIVISION OF

### STANDARD CAP AND SEAL CORPORATION

68 THIRTY-FIFTH STREET

BROOKLYN 32, N. Y.



## Good Packaging Begins with Good Sealing . . .

**N**O bottled product can go far on the road to brand leadership without good, reliable sealing. The success of the package—and the product—depends on the reliability of the cork seal.

Out of the scores of grades of cork from which bottle closures may be made, Mundet selects those grades that assure safe sealing. Since requirements differ according to the nature and use of the product, Mundet Cork Closures include many types and styles. Made from prime "pedigreed" cork, chosen from the world's best growing areas, Mundet Cork Closures are remarkably durable. Highly resilient, their efficient sealing action can be depended upon to protect the product during extended use. Write for information on types of corks best suited for your products. Mundet Cork Corporation, Closure Division, 65 S. 11th St., Brooklyn 11.

FOR THE SAFEST SEALING, USE

# MUNDET

## CORK CLOSURES

There's a Mundet office  
or representative near you

**ATLANTA**  
339-41 Elizabeth Street, N. E.

**BROOKLYN 11**  
65 South Eleventh Street

**CHICAGO 16**  
2601 Cottage Grove Avenue

**CINCINNATI 2**  
427 West 4th Street

**DALLAS 1**  
505 Southland Annex

**DENVER**  
The Stone-Hall Co.

**DETROIT 21**  
14401 Prairie Street

**HOUSTON 1**  
Commerce and Palmer Streets

**JACKSONVILLE 7, FLA.**  
1212 Mary Street

**KANSAS CITY 7, MO.**  
1428 St. Louis Avenue

**LOS ANGELES (Maywood)**  
6116 Walker Avenue

**LOUISVILLE 22**  
1418 Heyburn Building

**NEW ORLEANS 16**  
315-325 N. Front Street

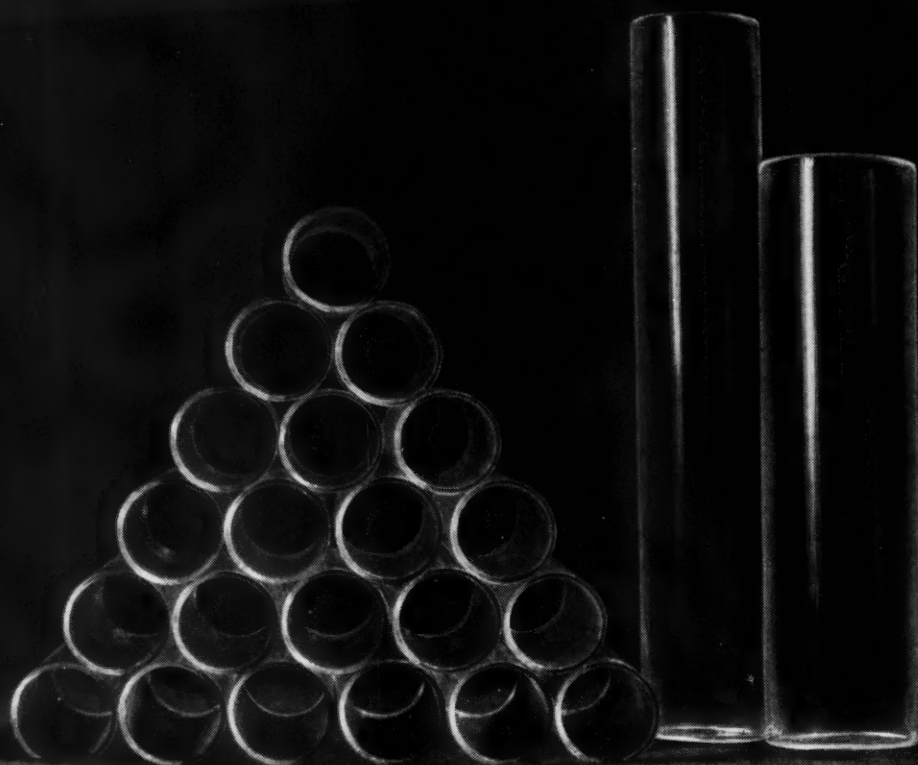
**PHILADELPHIA 39**  
856 N. 48th Street

**ST. LOUIS 4**  
2415 South Third Street

**SAN FRANCISCO 7**  
440 Brannan Street

**In Canada:**  
Mundet Cork & Insulation, Ltd.  
35 Booth Avenue, Toronto

For Greatest Transparency...Least Distortion...



This photograph of a Kimble vial, fabricated from machine-drawn glass tubing, shows one reason why your product would be packaged to better advantage



*For Assurance*

• • • *The Visible Guarantee of Invisible Quality* • • •

**KIMBLE GLASS COMPANY . . . . VINELAND, N. J.**

NEW YORK • CHICAGO • PHILADELPHIA • DETROIT • BOSTON • INDIANAPOLIS • SAN FRANCISCO



*finer* METAL LITHOGRAPHY  
*for* CANS  
 COLORS...LACQUERS...ARTISTRY  
 WORKMANSHIP  
*all by* HEEKIN



**HEEKIN CANS**

*With Harmonized Colors*

THE HEEKIN CAN CO  
 CINCINNATI 2, OHIO  
 LITHOGRAPHERS OF METAL  
 CANS SINCE 1901

# HOLD THAT FLAVOR!

Gain new, happier customers by fully protecting your frozen foods in flavor-tight packages by Dobeckmun. Cellophane, other films, metal foil and coated papers, alone or in laminated combinations, meet the most exacting requirements. Handsome multicolor printing adds sales-producing glamour, gives your package dominance wherever shown. Ask for practical suggestions.

*The Dobeckmun Company, Cleveland 1, Ohio*



## VERSATILE DOBECKMUN PACKAGES ENGINEERED TO MEET YOUR NEEDS

**Cellophane bags:** single, duplex or "Tri-tect"; printed or plain; flats, squares or satchels.

**Freezer bags:** of special, heat-sealing, coated parchment; pints and quarts in handy carton dispensers. Other custom sizes.

**Printed overwraps:** with true-to-life illustrations of contents in handsome multicolor printing.

**Metalam:** heat-sealing laminated aluminum foil and film, combining permanent moisture-vapor-proof protection with unexcelled attractive appearance.

*Ask for samples and suggestions on  
Dobeckmun packages to meet  
your specific needs.*

# DOBECKMUN

Self-selling packages in processed films and foils

Branches in Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, San Francisco and Seattle.  
Representatives everywhere.

Ever see a

## SPEC-TRO-PHO-TOM-E-TER?

Looks like a Rube Goldberg cartoon. Costs more than you would pay for 6 automobiles even at today's prices, and could be set on the top of your kitchen table.

But—it takes all the guesswork out of color matching. Now the paper industry can take any white or colored sample of paper, put it in the Spectrophotometer and mechanically, accurately and scientifically determine exactly how many parts of various colors combine to produce the color of the specimen.

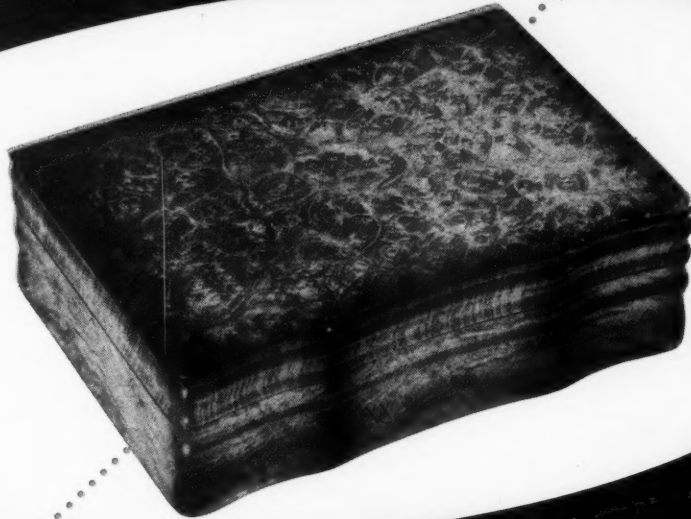
What's it mean to you? Well, from now on you'll get closer color matches as materials become available. The paper industry will save lots of time "matching colors" and ultimately this saving will be reflected to you in lower costs and improved quality. MATTHIAS PAPER CORPORATION, 165 West Berks Street, Philadelphia 22, Pa., Box 127, Wellesley Mass., 602 Guilford Bldg., Greensboro, N. C.



## "done up brown" in a PILLIOD BOX

Wood responds with maximum versatility to the imaginative scope of the package designer... gives greater protection... more sales appeal... quicker acceptance by dealer and customer alike. A product, "done up brown" in a Pilliod Wooden Box, is off to a good start.


Pilliod's large backlog of orders prohibits acceptance of new commitments indefinitely. Sorry.



THE **PILLIOD** CABINET COMPANY  
SWANTON, OHIO

**GIVE YOUR PACKAGING  
A  
MAGIC  
DEAL  
IN  
BUY APPEAL**

**TUPPER**

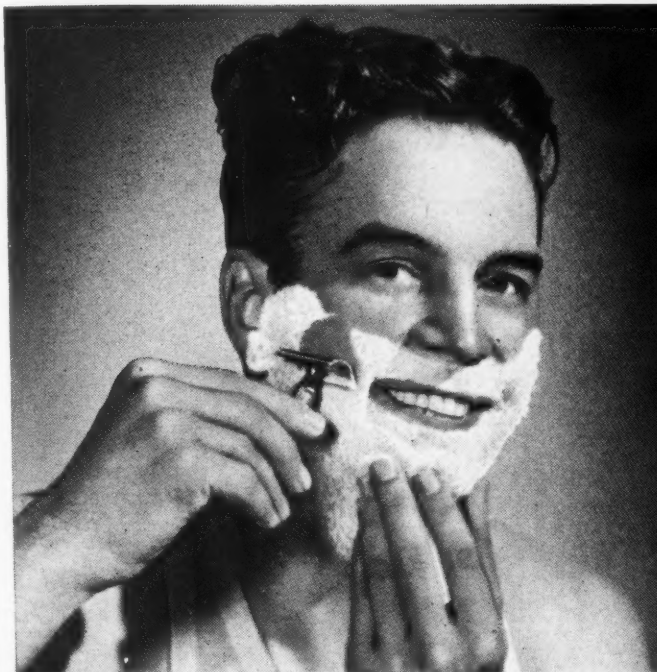


For extra sales punch in eye-catching colors, Tupper Tumblers and Tupper covered Refrigerator Dishes in lightweight, breakproof Tupper Poly-T plastic offer unlimited possibilities for packaging of dry and wet foods, confections and snacks. Tempting even at the quickest glance on the counter or in the show case, these Tupper products become smart, useful products on the dinner or card table, in the bar, the game room or on outings or picnics. They impart no taste, clean easily, and will not mar the finest furniture. The Tumblers, moulded in Poly-T plastic, are in frosted crystal and five lovely pastel shades of lime, lemon, orange, raspberry and plum. The covered Refrigerator Dishes of frosted crystal are designed for refrigerator and deep freeze use. They stack perfectly and neither contract nor expand. All Tupper products are manufactured by us in our own plants. Tupper protects the jobber. Write today.

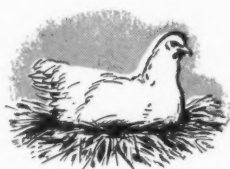
**TUPPER PLASTICS, INC., Farnumville, Mass.**

NEW YORK CITY OFFICE: 225 FIFTH AVE. • CAN. ADDRESS: HINDAVID, REG., 916 BLEURY ST., MONTREAL, P. Q.

# It's Versatile Stuff—This Rhinelander Paper



Science contrives an improved blade to ease the chore of shaving. Rhinelander G and G Task Papers\* seal out rust and corrosion—retain oils that guard fragile cutting edges. Thousands of fine steel products enjoy this better protection.



Your Breakfast Egg is well packaged by its own shell. But "industrial" eggs—dried or frozen—have most exacting packaging needs with respect to moisture, fat and wet strength—amply supplied by Rhinelander G and G Task Papers.\*



VTR (Vapor Transmission Rate) is the measure of moisture resistance—which in turn is the essence of protective packaging Rhinelander G and G Task Papers\* offer the maximum of this quality at a cost even marginal items can afford.



Pheasants on your table in June as fresh as the October day you shot them. Thank the miracle of modern freezing and protective packaging by Rhinelander. Zero temperatures mean low humidity that can dry out and ruin frozen delicacies.



A feminine purse—traditionally cluttered—often contains a "sanitary" Tampon sheathed in Rhinelander glassine. Be assured it will look and be "hospital" clean and sterile—tightly sealed against contamination as from loose cigarette particles.



The Frankfurter's Band is its bond. The law requires banding. So does good salesmanship—to protect brand identity. Rhinelander lacquered glassine satisfies greaseproof requirements and offers speedy, cheap application by heat seal.

\*Glassine and Greaseproof—the functional papers that do so many tough jobs well



IN THE LAND O' LAKES, MILLS AT RHINELANDER, WIS.





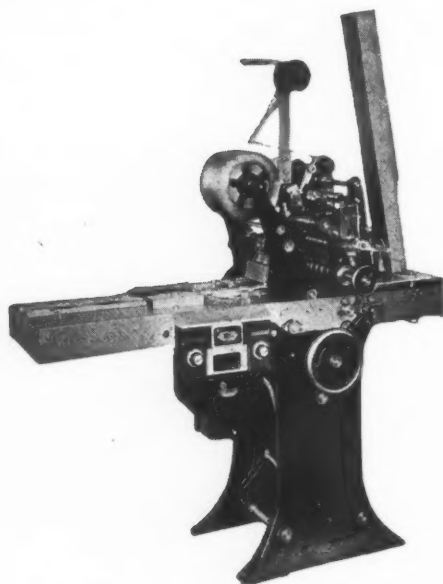
*High Speed Wraps that Keep Moisture!*  
**IN or OUT of Packaged Products!**  
 at low cost with Scandia\*

### **Cellophane Wrapping Machines**

Scandia machines are designed to provide smooth and foolproof operation at speeds that handle volume production with exceptional economy . . . with or without tear tape attachments.

### **UP TO 250 PACKAGES PER MINUTE!**

Scandia units are available for tight wraps or loose wraps. They are doing excellent work on Candy, Drugs, First Aids, Sundries, Cigars, Cigarettes, Razor Blades, etc. Also on non-symmetrical products such as Baby Goods, Baked Goods, Toys, etc.



\*Manufactured under Bronander Patents.

*Compare facts and you'll want a Scandia!*

# **Scandia MANUFACTURING CO.**

**NORTH ARLINGTON**

**NEW JERSEY**

The package that  
gave 222 days



Its factory-packed aroma, flavor, and moisture were held in for only 28 days by box liners formerly used for "Daniel Webster" Pipe Tobacco. Now a new combination package structure of Alcoa Aluminum Foil laminated to glassine paper and Cellophane is being used for the inner bag. And the shelf-life of "Daniel Webster" has gone up to 222 days. Eight times as long!

The aluminum foil holds down the MVT of the structure to practically zero. And the two supporting laminations supply easy formability and high resistance to puncture and tear. The combination structure is closed tight by a multiple fold. Once opened, the bag can be refolded by the smoker to keep the tobacco moist and flavorful.

Whatever you are packaging . . . tobacco or tea, chemicals or drugs, hygroscopic powders or effervescent tablets . . . you will be interested in increasing shelf-life.

Leading converters laminate Alcoa Aluminum Foil with other packaging materials. These converters have the answer to your packaging problem. For their names, write to ALUMINUM COMPANY OF AMERICA, 2129 Gulf Bldg., Pittsburgh 19, Pa. Sales offices in leading cities.

The inner bag for "Daniel Webster" Pipe Tobacco is made for Webster Tobacco Company, Inc., by Marathon Corporation, makers of "Maraweld". The bag is a combination structure of Alcoa Aluminum Foil laminated to glassine paper and Du Pont Cellophane.



**ALCOA ALUMINUM FOIL**

# You'd never guess what's in this tube!



Sorry, you're not even warm.

**Wood** is in the tube. Nice, juicy plastic wood. And therein lies an interesting story.

Plastic wood didn't always come in tubes. It used to come in cans only. But the average householder, who uses the product only occasionally, found this discouraging. For contents of the can would often dry out between uses.



This was Sun Tube's cue. "How about a small, air-tight container?" we asked. "One that can easily be opened and closed, exposing only a minute portion of the contents to evaporation." Whereupon the Plastic Wood people replied, "Let's see what you can do."

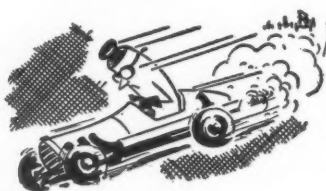


So we showed them. Today, as a result of packaging wood in a convenient, compact tube, sales to the occasional user have increased enormously!



## Cue for you

There may be a closer connection than you think between this packaging problem and the one *you* face. Because the Plastic Wood story is typical of the many unusual packaging problems we have helped solve through the use of Sun Tubes.



And a good example, too, of the head-start that perfect packaging will give your product in the race for markets that's only just beginning.

You probably know the advantages of the collapsible tube. The fact that it's convenient and compact, that it's germ-proof and light-proof.



What you may *not* know is that new developments have made Sun Tube the ideal container for many products not formerly considered even prospects for a tube.



Your product may be one of them. At any rate, the Sun Tube representative nearest you will be glad to furnish you with information and advice. Why not phone or write him or Sun Tube's main office, 181 Long Ave., Hillside, N. J.

## Sun Tube Corporation

HILLSIDE • NEW JERSEY

CHICAGO 1, ILL.  
James L. Coffield, Jr.  
360 No. Michigan Avenue

ST. LOUIS 1, MO.  
M. P. Yates  
Arcade Building

ST. PAUL 1, MINN.  
Alexander Seymour  
615 Pioneer Building

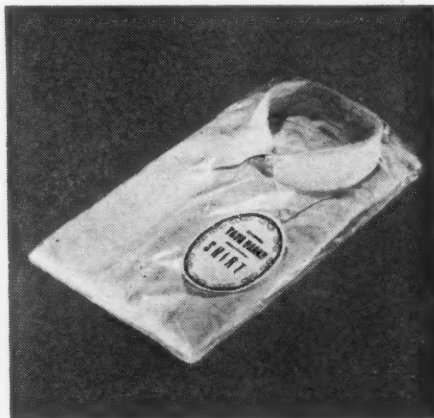
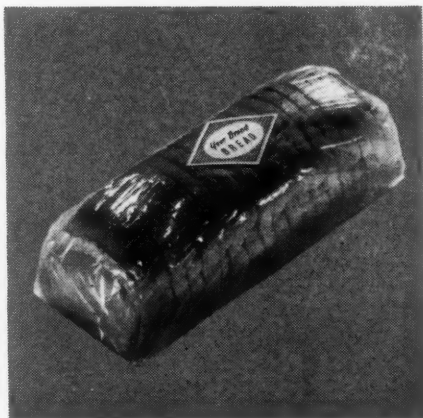
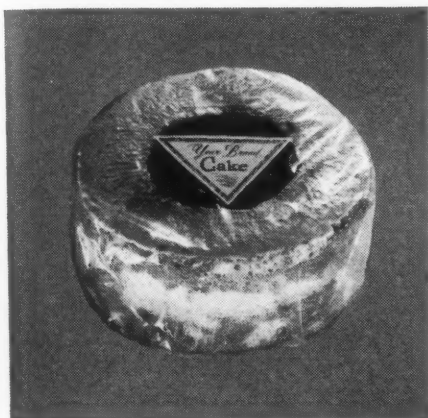
LOS ANGELES 27, CALIF.  
R. G. F. Byington  
1260 North Western Ave.

CINCINNATI 3, OHIO  
Ralph H. Auch  
3449 Custer Road



REMEMBER

when you package with  
these materials there's  
a special label problem



...and Monsanto has the right answer

Everybody agrees, cellophane, waxed paper and acetate (Vuepak\*), "the materials with a view," are tops for packaging thousands of products. BUT they have always presented a problem in practical, attractive labeling.

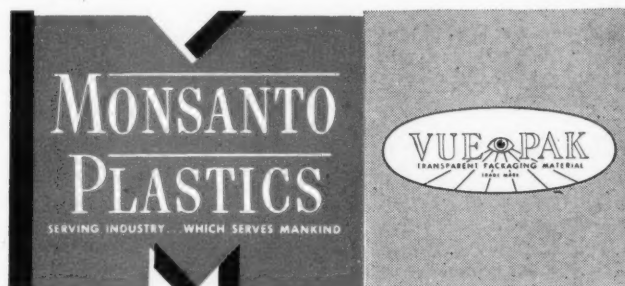
That problem has now been solved ...

Heat sealing labels with a newly developed Monsanto Plastics coating meet every requirement for ideal labeling for these modern materials:

1. With this special plastic coating the labels *stay put* ... are fused physically with a new kind of permanent bond to the base material.
2. They eliminate the unsightly, easily displaced inserts, bands, etc., and expensive, often, hard to read printing. The labeling is economical, fully automatic.
3. They afford easy flexibility in coding, dating, etc.
4. They can be designed without limitations on color, size, etc.

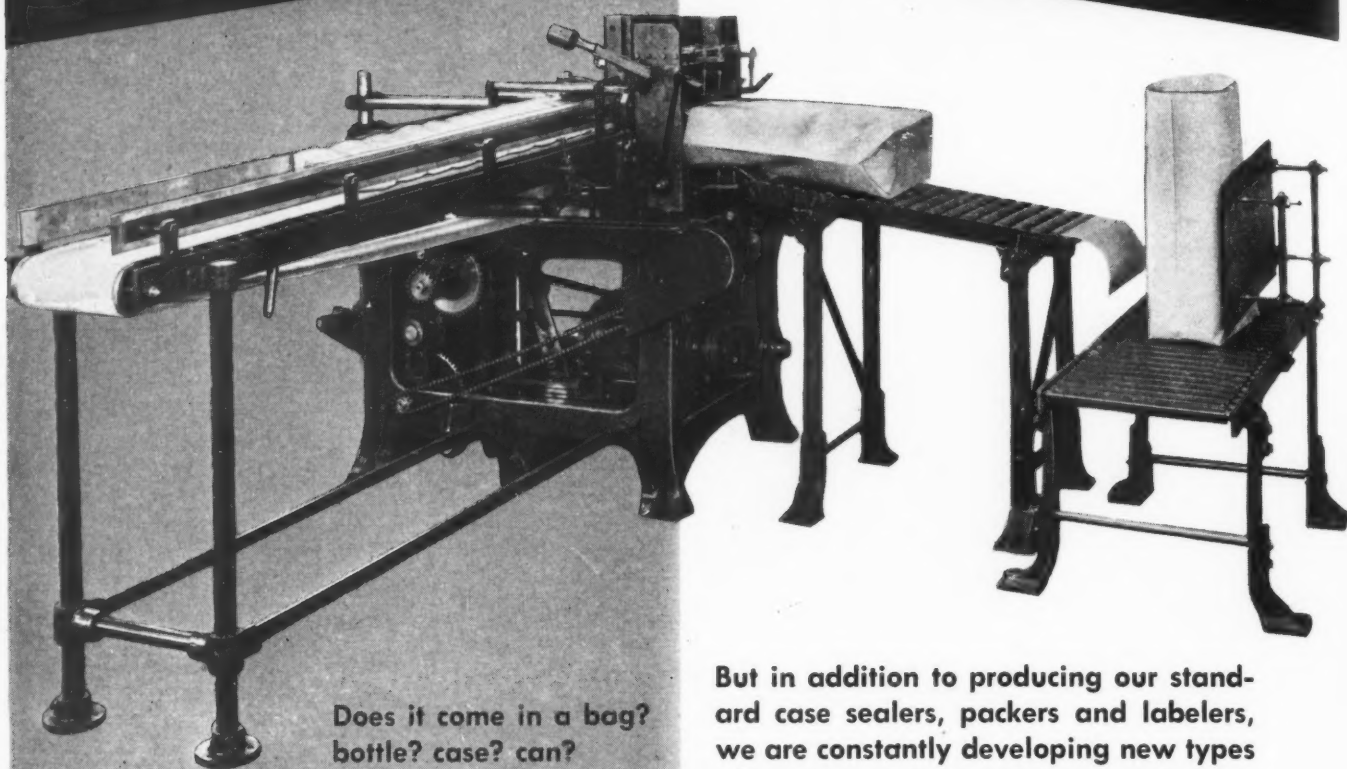
Here is just another sample of how Monsanto Plastics' packaging section is serving in functional, as well as structural and decorative packaging. Your regular supplier can give you information on these new hot melt labels ... or write direct for data on this or any other packaging problem: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Mass. In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.

\*Reg. U. S. Pat. Off.



# STANDARD-KNAPP

# "WRAPS IT UP!"



Does it come in a bag?  
bottle? case? can?

We can make a machine to package it.

Standard-Knapp's standard-for-quality bag packers, bottle packers, case sealers and can labelling machines are designed expertly and built of finest materials to give automatic, completely functional performance. They are used in leading plants of most of the high production packaging industries throughout the country.

But in addition to producing our standard case sealers, packers and labelers, we are constantly developing new types of equipment for specialized packaging purposes, constantly designing and making variations of our proved machines.

Standard-Knapp "wraps it up" for the sugar industry, for the beer, cigarettes, household products and canned soup industries. If you have some new packaging operation requiring a new design to handle it, get in touch with us.

Let Standard-Knapp "wrap it up" for you.

## Standard-Knapp Corp.

MANUFACTURERS OF CASE SEALING, CASE PACKAGING AND CAN LABELING MACHINES  
FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

570 Lexington Avenue  
NEW YORK 22, N. Y.

221 North La Salle St.  
CHICAGO 1, ILL.

145 Public Square  
CLEVELAND 14, OHIO

300 Seventh Street  
SAN FRANCISCO 3, CALIF.

420 S. San Pedro Street  
LOS ANGELES 13, CALIF.

3224 Western Avenue  
SEATTLE 99, WASH.

1208 S. W. Yamhill Street  
PORTLAND 5, OREGON

349-350 Paul Brown Bldg.  
ST. LOUIS 1, MO.

6 Radcliffe Rd., ALLSTON 34 (Boston), Mass.

Windsor House, Victoria St., LONDON S.W. 1, ENG.



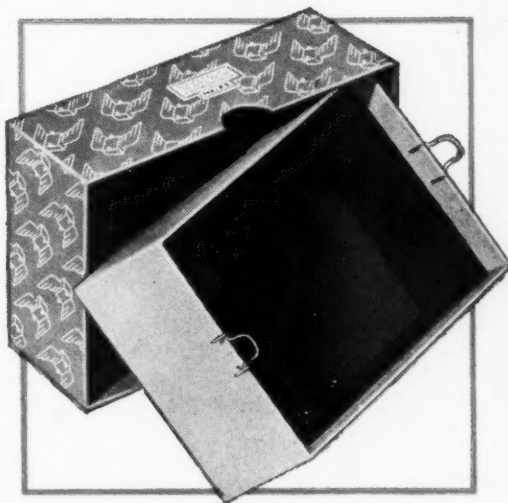


## *America's number one package . . .*

**ON LAND:** For small parts packaging, the Mason MailMaster is the leading container for speedy, convenient, strong packaging.

**AT SEA:** For export packaging, the Mason MailMaster, because of its light weight, basic strength and patented closure, is America's number one export package — ably demonstrated by the millions which have been used during the war for packaging vital overseas supplies.

**IN THE AIR:** Seventeen years ago the Mason MailMaster was, as it is today, the number one air mail package. Pioneered for light weight and maximum strength, the Mason MailMaster leads the field in air transportation packaging. Write for new catalog showing the entire line of Mason MailMasters, Dept. , The Mason Box Company, Attleboro Falls, Mass., 175 Fifth Ave., New York.



The NEW Mason MailMaster designed for the Age of Flight. Light and strong, with positive wire closure.

# *The* MASON BOX COMPANY

MANUFACTURERS OF AMERICA'S NUMBER ONE BOX . . . THE MASON MAILMASTER



# It's a Gift



...THE HANDSOME PACKAGE

*Sefton*

designed for the  
DAZEY CORPORATION OF ST. LOUIS!

A practical, protective package...and a handsome gift carton all in one! That's Sefton's new package designed especially for Dazey's Triple Ice Crusher! It's covered in a gleaming silver foil...with bright tin ends...to catch a customer's eye, and is compact and easy to carry! The string opening top is easy to open...and can be closed again. Moreover, for the manufacturer's protection it's factory-sealed and tamper-proof! Just a hint at the ingenuity of Sefton designers! See them today!



*Sefton*  
**FIBRE CAN  
COMPANY**  
ST. LOUIS . . . . . NEW ORLEANS

DISTRICT OFFICES: • Los Angeles • San Francisco • Denver • Tampa • Chicago • Des Moines • New Orleans • Boston • Detroit • Kansas City • St. Paul  
Omaha • New York • Cincinnati • Cleveland • Oklahoma City • Pittsburgh • Memphis • Nashville • Dallas • Houston • Salt Lake City • Seattle



COLOR SELLS

**KUPFER BROS. CO. 4 ASTOR PL., NEW YORK 3, N. Y.**

*Manufacturers of Surface Coated Papers Since 1845*

**KUPFER BROS. PAPER CO.**

145 West Hubbard Street  
Chicago 10  
Illinois

**Southwest Representatives:**

**MODERN PACKAGINGS**

Irwin-Keasler Building  
Dallas 1, Texas

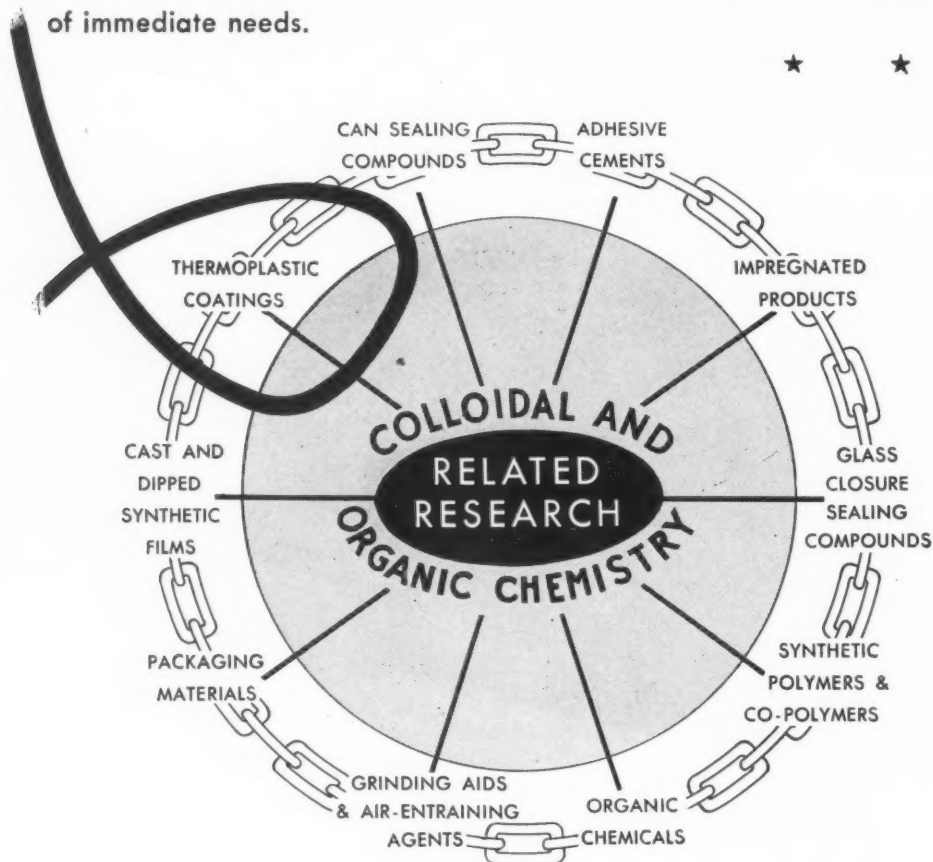
**FRYE PAPER COMPANY**

1510 Santa Fe Avenue  
Los Angeles 21  
California

**Branches in:**

BOSTON • RICHMOND  
PHILADELPHIA  
SEATTLE  
SAN FRANCISCO

This is the way that Dewey and Almy's program of "related research" serves twenty basic industries, and serves them well. In the Dewey and Almy program, links of knowledge mean that you can buy with your laminants the experience and knowledge of many chemists, of much industrial practice. Because of this, we believe we can serve converters to their advantage, opening new markets with products that are kept ahead of immediate needs.



We do not compete with the research staffs of paper converters. We supplement them, free them to give their time to the main problem of obtaining and handling proper papers, take care of the detail work that our reserve of man-power and experience can handle readily. Why not try this better, easier way to superior results with laminants?

## Darex *Laminating* Adhesives

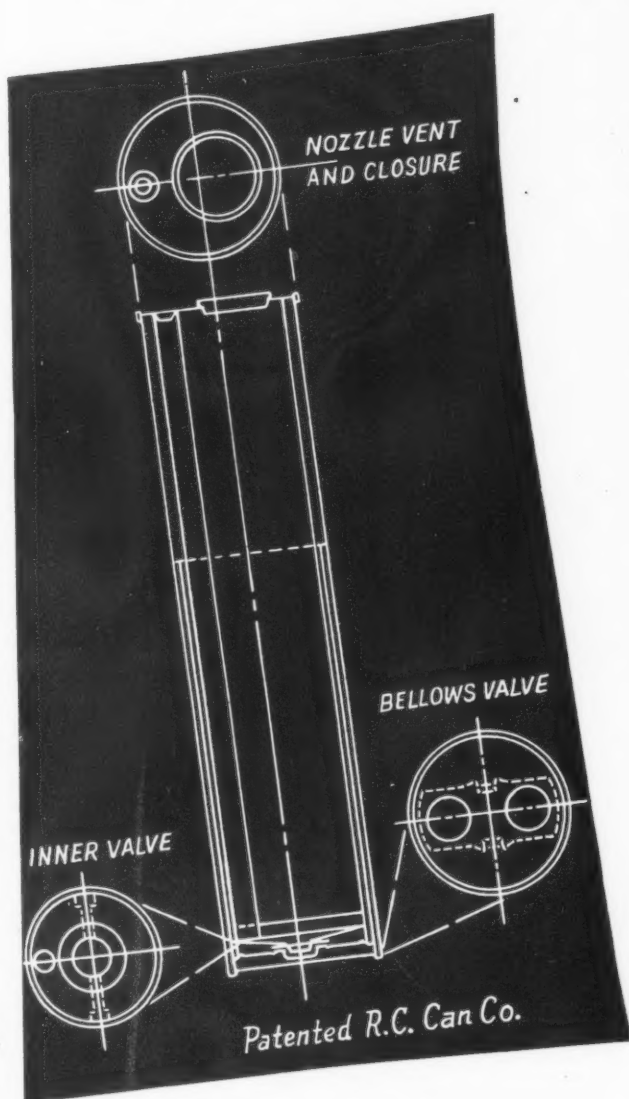
A Product of

DEWEY AND ALMY CHEMICAL COMPANY  
CAMBRIDGE 40, MASSACHUSETTS ★



**SO SIMPLE TO USE  
SO EFFECTIVE**

**—yet another problem in  
design and manufacture**



## PACKAGE ENGINEERING AT YOUR SERVICE

The Spracan container is a good example of the ingenuity of design and package-engineering skill that R. C. contributes to versatility in fibre can manufacture. It's the container with action—it operates in any position, at any angle, up or down. Those are a few of the features worked out by R. C. as well as right dimensions for volume and strength and good proportions for stacking, display and labeling surface.

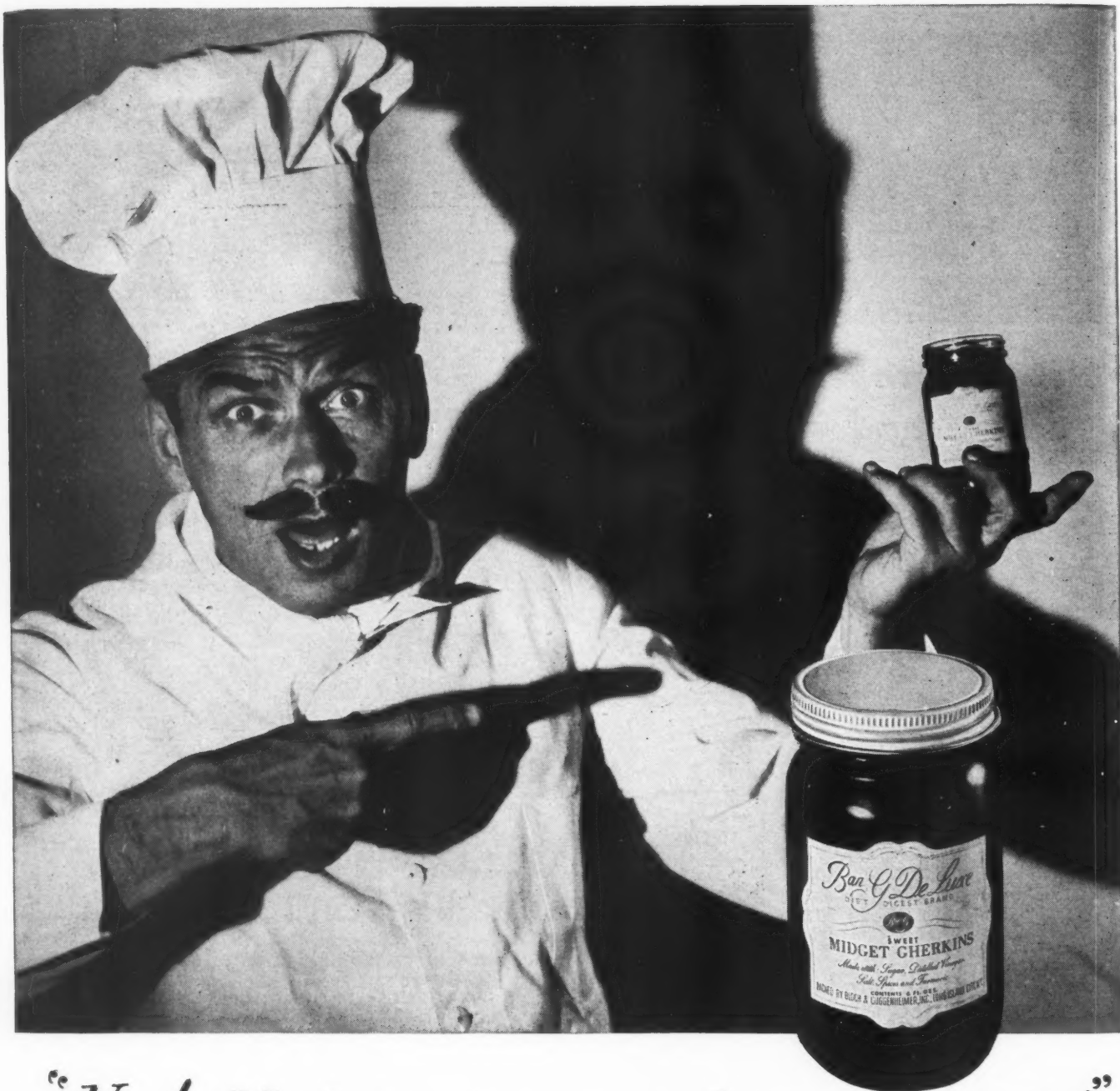
Get in touch with us about your packaging problems and plans.

**R.C. CAN COMPANY**

Manufactures fibre cans, tubes, spools and cores

Branch Factories: Arlington, Texas, Rittman, Ohio and Kansas City, Mo.  
Sales Offices: Minneapolis, New Orleans, Atlanta, Memphis, Milwaukee, Louisville, New York, Pittsburgh, Denver and Los Angeles.





*"No! No! No!.... not just PICKLES!"*

Calling these tantalizing delicacies "pickles" is like calling a concert pianist a "piano player." These sweet Midget Gherkins are something special . . . reserved for those who appreciate the tempting flavor of Ban'G De Luxe Brand.

These tasty little Gherkins are packed by Bloch & Guggenheimer, Inc., Long Island City, N. Y. Like so many other select products, they are securely sealed with Crown Screw Caps. The Deep Hook Thread, an exclusive Crown feature, grips under the glass thread and effects more sealing pressure with any given amount of application force.

Crown Cork & Seal Company, Baltimore 3, Maryland,  
*World's Largest Makers of Metal Closures.*

**CROWN CLOSURES**

# The Tale of a SALE



When Annabelle Smith goes  
out to buy  
There's cash in her purse,  
a gleam in her eye.

She shops (surveys show)  
with an open mind  
Knowing *what* she wants,  
but not *what kind*.\*



The appearance of things  
that catch her eye  
Often determines  
*what brand* she'll buy.

So there... in the store,  
Mr. Product Seller,  
If your product's good,  
let your package tell her!



\* National surveys have shown that women—who buy  $\frac{3}{4}$  of all goods sold at retail—also make  $\frac{3}{4}$  of their buying decisions at the point-of-sale—making selections, *on impulse*, from articles they SEE! Hence *the appearance of your package* is a vital selling factor.

Never underestimate the power of the package. If your package attracts the eye, arouses interest—and makes a better impression of *quality within* than others—it will WIN SALES.

LET RITCHIE WORK WITH YOU to develop a better package at low unit cost. One

that will instantly identify, fully protect and conveniently dispense your product—practical—production-planned—easy to fill or pack—to handle, to stack and display—but *above all* designed for eye-appeal, for quality impression—a package that sells!



**Never**  
**the Power**

COPYRIGHT 1945, W. C. RITCHIE & CO.

**W.C. Ritchie**  
and COMPANY  
8830 Baltimore Avenue • Chicago 17

- ★ SET-UP PAPER BOXES
- ★ FIBRE CANS
- ★ TRANSPARENT PACKAGES

**Underestimate**  
**of the Package!**

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • MINNEAPOLIS • MILWAUKEE • ATLANTA • NEW ORLEANS • DENVER • PORTLAND • SEATTLE • MIAMI



*What is a  
fine COUNTER  
MERCHANDISER  
made of?*



**T**HE Sofskin unit, produced by us for the VICK CHEMICAL COMPANY, consists of the five parts illustrated.

These ingredients are all carefully engineered and designed to form a display that creates a powerful impulse to buy.

It has been our privilege and pleasure to assist in the solving of the merchandising problems of some of America's finest organizations. . . May we be of service to you?

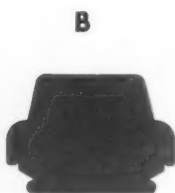
## **BROOKS & PORTER, INC.**

304 HUDSON STREET, NEW YORK, N. Y.

*Packaging and Display Specialists for half a century*



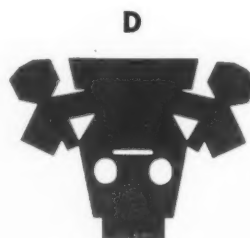
*The Body*



*Back Display Panel*



*Platform  
To Support  
Merchandise*



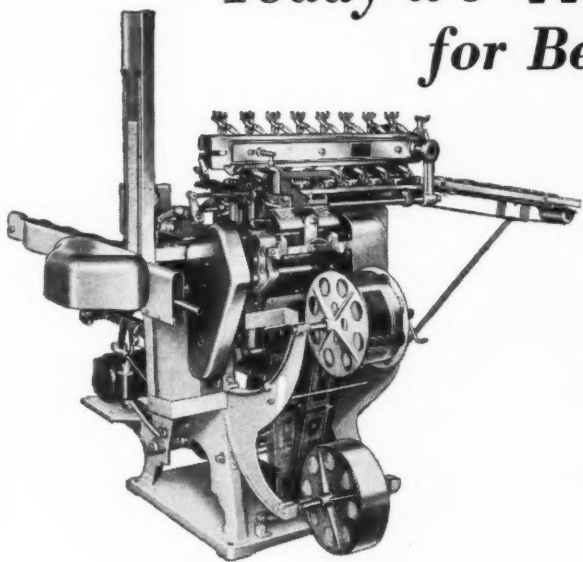
*Demonstrator  
Display  
Panel*



*Demonstration  
Material  
Carton*



## Today it's **WRAP-O-MATIC** for Better Product Wrapping



### WRAP-O-MATIC PACKAGING EQUIPMENT

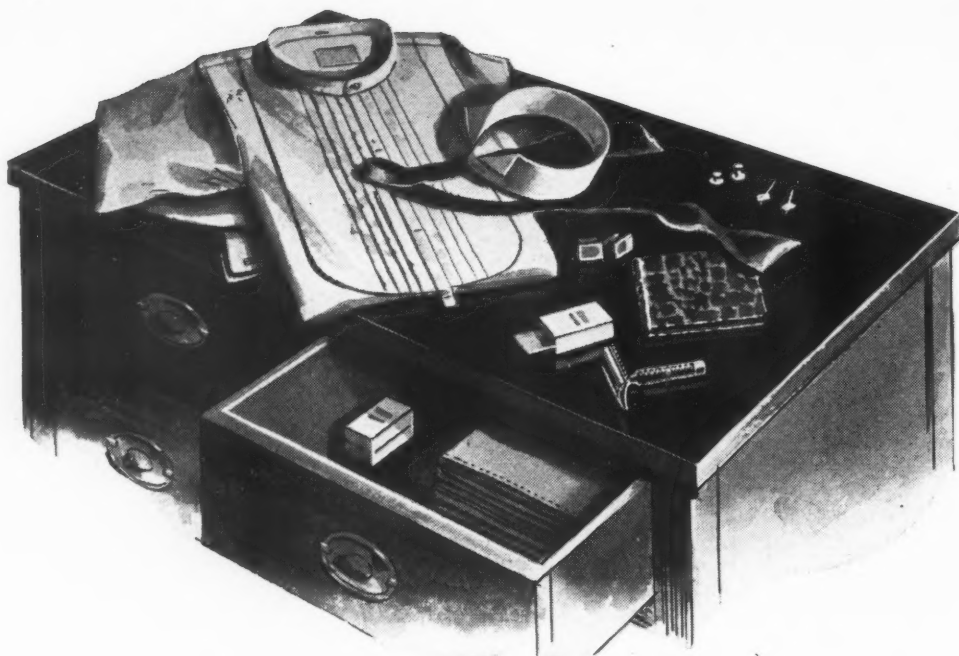
For wrapping candy bars, biscuits, and cookies. Wrap-O-Matic is the most popular Wrapping machine in the Confectionery and Bakery field . . . a real tribute to the flawless wrapping by Wrap-O-Matic.

**S**MART merchandisers of confectionery and bakery products are quick to recognize the extra advantages of Wrap-O-Matic wrapping . . . especially when those products are fragile or of irregular shape. The delicate handling by Wrap-O-Matic eliminates the use of collars or other protective materials permitting your products to be displayed in full view when using transparent wrapper.

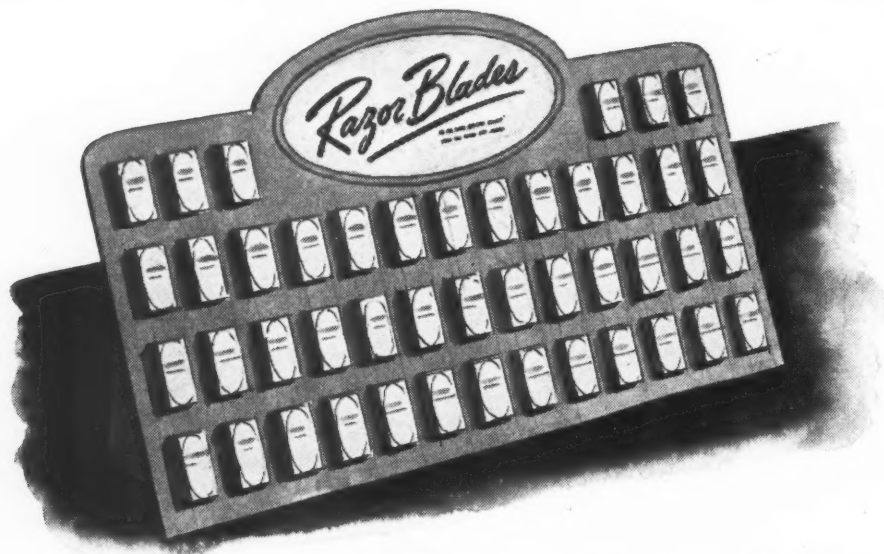
Wrap-O-Matics are economical . . . you save as much as 75% in wrapping labor and up to 35% in wrapping material. Production is at high speed . . . up to 120 units per minute. Wrapping is accurate . . . electric eye controls register of wrapper on product.

For better product wrapping you can't beat Wrap-O-Matic. Our engineers will be glad to survey your wrapping operations and show you how you can profit with Wrap-O-Matic. Write today for illustrated brochure and more details!

**Lynch** Package Machinery Corporation  
TOLEDO 1, OHIO, U.S.A.



## *How Much is a Razor Blade Worth?*



Even in razor blades there is an exclusive and limited market.

The best of blades may sell for five times the average price.

They are made of the finest steel and to the closest inspection standards.

To protect their peerless edges, individual wraps and strong Ridgelo clay coated envelopes are used.

Packaging the same necessity—in the volume market where ten blades may cost a quarter—is the same Ridgelo Clay Coated Boxboard.

Millions of these little cartons pass over counters every year, all glossy clean, smooth, well-printed on Ridgelo.

Have your boxmaker use it!

It adds so little to cost and so much to packaging value.



MADE AT RIDGEFIELD, N. J., BY LOWE PAPER COMPANY

### REPRESENTATIVES:

H. B. Royce, Detroit • Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia





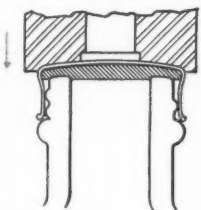
● For the last word in sealing efficiency, we give you Turret-Top the Turtle. He's fully protected, but opens up easily when it's time for him to get under way. And his reclosure feature comes in mighty handy, too.

There is one advantage we haven't been able to steal from Turret-Top for our Alseco R-O's—they aren't exactly self-opening. But a twist of the wrist does it.

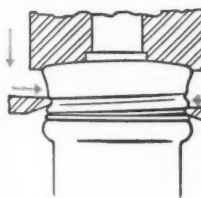
The unique Alseco R-O principle *rolls-on* the threads while the cap is held down on the bottle lip. This gives a tight, efficient seal that prevents leakers and breathers; eliminates evaporation.

Our 32 years of experience in making seals probably holds an answer to your sealing problem. Write to ALUMINUM SEAL COMPANY, New Kensington, Pa.

#### THIS WORKS BEST WITH ALUMINUM



1. Plain-skirted Alseco Seal is seated squarely on container. Under stationary top pressure, container lip is embedded in cap liner evenly all around, effecting the seal.



2. While the seal is thus held under pressure, threads are Rolled-On to conform exactly with threads on container. Each seal is tailor-made, fits perfectly, seals tighter.

# ALSECO SEALS

AND SEALING MACHINES

ALUMINUM SEAL COMPANY • NEW KENSINGTON, PENNSYLVANIA  
SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

TAILOR MADE OF  
ALCOA ALUMINUM

SALES OFFICES IN LEADING CITIES

**MAKE** *your own* **BAGS**

**WITH THE SHUMANN BAG MACHINE**  
(formerly WRAP-A-DE)

- ★ USED SUCCESSFULLY BY COMMERCIAL BAG MANUFACTURERS FOR 15 YEARS
- ★ DESIGNED AND BUILT BY A COMMERCIAL BAG MANUFACTURER
- ★ NOW AVAILABLE TO ALL BAG USERS

Today all packagers can enjoy the benefits of a commercial-type bag machine. Mass production facilities have brought the cost of the SHUMANN Automatic to little more than the price of an ordinary, light-weight machine.

The SHUMANN Automatic is heavily constructed, for years of trouble-free use. It operates continuously, with minimum attention, without breakdowns, without waste. It makes up to 5000 flat or gusset bags per hour, in the exact size you need. Features CRIMP-SEAL bottom bags that are absolutely moisture-proof and sift-proof . . . uses any heat-sealing material such as Diaphane, Cellophane, Pliofilm, Coated Glassine, or Foil.

Designed, built and proved by a commercial bag manufacturer. Make your own bags efficiently and at minimum expense with the SHUMANN Automatic Bag Machine. Write for full information.

**ELECTRONIC** *Control*

Photo-electric eye keeps printing centered for perfect register. It's your guarantee against waste — every bag is perfect.

**SHUMANN**  
**EQUIPMENT COMPANY**

1206 E. Carson St.

Pittsburgh 3, Pa.

EVERYTHING IN PACKAGING



"Blanket Coverage" \*  
PRODUCES PROFITS...



Blanket by  
CHATHAM MFG. CO.  
Container by Arnrus

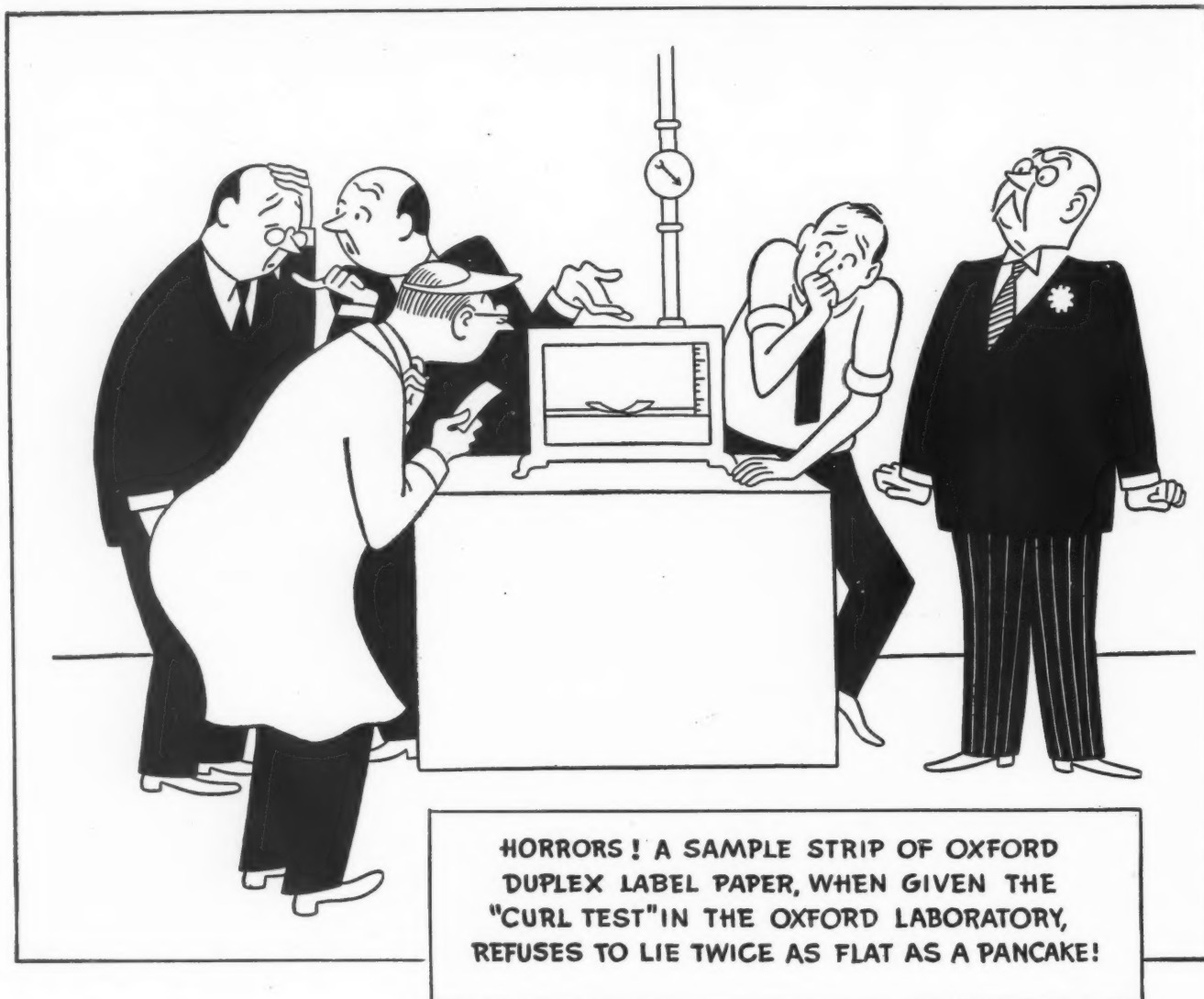
\* It's an  
**Arnrus**  
Plastic Container

Quick profits come from smart packaging today. That's why Arnrus Plastic Containers . . . transparent, form-fitted, product-enhancing . . . yet sturdy and economical . . . are the answer to packaging for sales and profits. They reveal product personality . . . add the sparkling beauty and protection that appeals to the consumer.

Whatever your product, Arnrus can form-fit it — *economically!* Write for complete Arnrus packaging particulars today!

**NATIONAL TRANSPARENT  
PLASTICS COMPANY**  
SPRINGFIELD MASSACHUSETTS





**O**XFORD makes over a hundred different papers, and aims to make each one the highest quality of its kind.

For example, Oxford Duplex Label Paper has two different surfaces. One must take printing beautifully—the other must paste efficiently. The neat problem is to produce it so that it stays flat.

Test laboratories constantly check sample strips to make sure every finished run is right, and will perform with a minimum of curl.

All Oxford papers get many tests—to see how they fold, how

strong they are, how well the surface fibres are bonded and so on. This is only one step in maintaining the high quality standards that result from complete control from wood to finished paper. Beyond all this, Oxford has had many years' experience making

over 1,000 miles of quality paper a day. Our papermaking research never stops. All of which explains why Oxford is known as quality paper headquarters in the printing paper field. Paper merchants in key cities coast to coast distribute Oxford quality papers.



*Included in Oxford's line of quality printing and label papers are: ENAMEL-COATED—Polar Superfine, Maineflex, Maineflex C1S Litho, Mainefold and White Seal; UN-COATED—Engravatone, Carfax, Aquaset Offset, Duplex Label and Oxford Super, English Finish and Antique.*

## OXFORD PAPER COMPANY

230 PARK AVENUE, NEW YORK 17, N. Y.

*MILLS at Rumford, Maine  
and West Carrollton, Ohio*

*WESTERN SALES OFFICE:  
35 East Wacker Drive, Chicago 1, Ill.*

*DISTRIBUTORS  
in 48 Key Cities*

To *Seal* the Closure  
and *Show* it too!



## Another Reason for Adopting CEL-O-SEAL

REG. U. S. PAT. OFF.

The tax stamp on this closure must be clearly visible at all times. The "Wind-O-Band"\* seal—a special type of Du Pont "Cel-O-Seal" band—fully displays the stamp and holds it in place even after the bottle is opened.

Perhaps the transparency offered by "Cel-O-Seal" will have a special application in your case . . . to show printed directions on the closure, for instance. It's another of the

all-round advantages of "Cel-O-Seal"—a colorful sales aid, and an essential protective factor.

"Cel-O-Seal" cellulose bands are manufactured by E. I. du Pont de Nemours & Co. (Inc.), Wilmington, Delaware. Also sold by Armstrong Cork Co., Lancaster, Pennsylvania, and I. F. Schnier Co., San Francisco, California.

\*Trade Mark



DU PONT "CEL-O-SEAL" BANDS

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



ASK ABOUT the new "Cel-O-Seal" banding machine at the Du Pont booth at the Atlantic City Packaging Show.

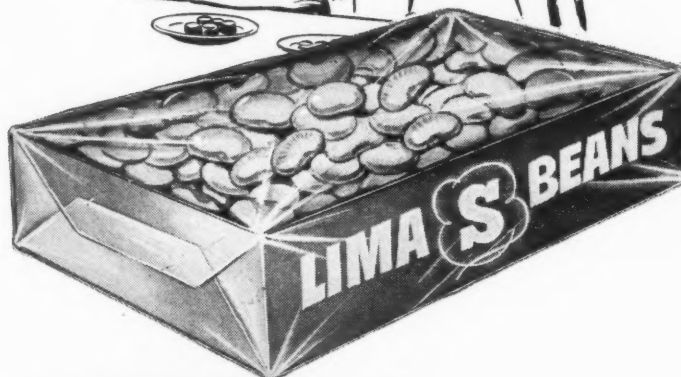
# It's SYLVANIA for Cellophane!



to protect tobacco

WHEN YOU think of protection, think of Sylvania Cellophane. For this versatile packaging material is more than an attractive wrap. Its important functional qualities make it indispensable protection for perishable products such as every type of tobacco, confectionery, baked goods or frozen foods. Sylvania Cellophane is air, dust- and moisture-proof... assures retention of flavor, freshness and aroma.

AND DON'T FORGET, Sylvania is an improved cellophane. Today it offers even better protection than ever before to an extensive list of packaged products.



...and beans



...and marshmallow creams!

## SYLVANIA CELLOPHANE

Made only by **SYLVANIA DIVISION**

AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 122 E. 42nd Street, New York 17, N. Y.

Plant: Fredericksburg, Va.



•Reg. Trade Mark





#### STAND-OUT FEATURES

Whiter-brighter-smoother  
—tougher—more uniform—  
more rigid—non-yellowing  
—fold better—print better.



The Secret is in the SURFACE!

The secret of the superiority of A. C. M. Clay Coated Cartons is in the pure white, velvet-smooth surface.

Colors print brilliantly, halftones have true realism, the entire design is reproduced in finest detail for maximum eye-appeal. And it's lasting, too, for the white surface of A. C. M. Clay Coated Cartons is non-yellowing — stays clean, bright and attractive.

There's an A. C. M. Clay Coated Carton that will make your products stand out in any competition! Present demand for these sales-building cartons has production taxed to the utmost, but plant facilities are being expanded as rapidly as possible to meet future requirements.

#### AMERICAN COATING MILLS, INC.

America's Largest Producers of High Quality Clay Coated Cartons and Carton Board  
Elkhart, Indiana • Chicago • New York

Affiliated Company: Modern Packages, Inc., Memphis, Tenn.

# ***A.C.M. Clay Coated Cartons*** ***and carton board***



## Jars or Bottles Are Always Moving When Cartoned by this Jones Cartoner

Here's how a Jones Constant Motion Cartoner operates—as illustrated in a Jones machine recently installed by the Chesebrough Manufacturing Co. for their Vaseline.

① Jars, received from labelling machine, are moving constantly.

② Jars separated and gradually transferred to individual buckets by star wheel. Should jar arrive lying down, the cartoner automatically stops. No chance to break bottle or damage machine. Once jar enters star wheel, it is transferred positively, without dependence on gravity or friction.

③ Jars are gradually laid horizontal in buckets.

④ FP loader gradually inserts jars and leaflets in cartons. Should oversize load resist entering carton, the machine automatically stops and loading arm swings back so that defective piece can easily be removed.

Handling bottles in this fashion eliminates the clash-bang of intermittent action. This high-speed cartoner is virtually noiseless and trouble-free in operation. Breakage and stoppage are reduced almost to the vanishing point, even at speeds of 180 a minute or more.

Let us show you a Jones Cartoner in action, and we are certain that personal inspection will quickly convince you of the definite superiority of the Jones Constant Motion Cartoner.

# R. A. JONES & COMPANY, INC.

P. O. Box 485

CINCINNATI, OHIO

THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED





**Show the lady...if you want to sell her!**

PACKAGES THAT DRAMATIZE THE PRODUCT  
DESIGNED AND PRODUCED BY



**FOLDING CARTON** for X-PERT Ginger Bread Mix, product of Modern Foods, Inc., dramatizes the product by showing with full color food illustrations how easy it is to use.



**LABEL** for RICH-NUT Green Beans, product of the Western Canning Co., dramatizes the brand name with a novel caricature, and on the consumer panel, shows full color EYE-PETIZED recipe for serving the product.

**YOUR** package has an all-important job to do in modern retail selling. With the increasing trend to self-service merchandising, the package is often the only point-of-sale link in the merchandising chain. It must attract the consumer and influence her buying impulse. These three packages, designed and produced at U. S. P. & L., are doing a successful point-of-sale merchandising job for their products in the food field. Call on this "U-S" design know-how and production skill to improve your package for the competitive sales battle ahead.



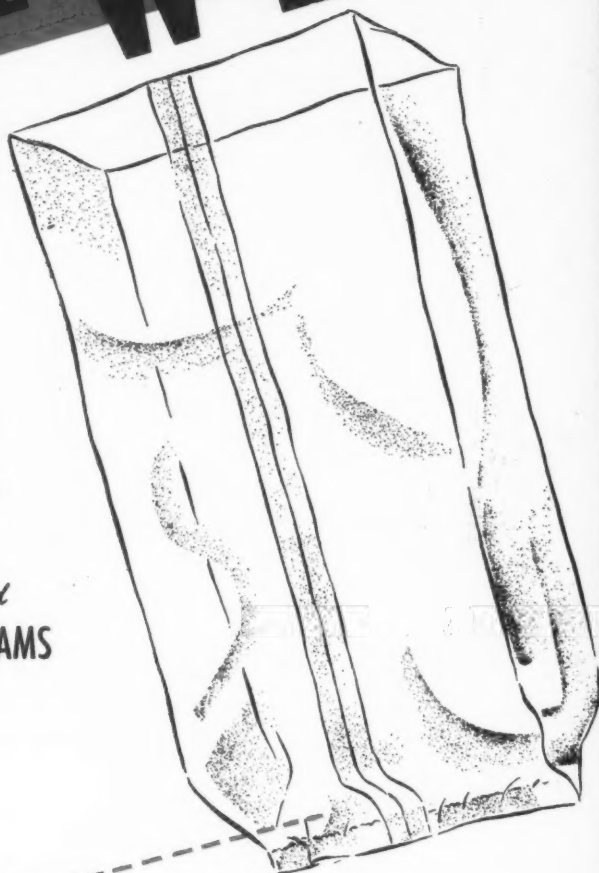
**WRAPPER** for LIGHT-CRUST Cake Flour, product of the Burris Mill & Elevator Co., attracts unusual attention and dramatizes the product with a design technique that lends itself to mass display.

**THE UNITED STATES PRINTING & LITHOGRAPH CO.**  
EXECUTIVE OFFICES: 482 BEECH ST., CINCINNATI 12, OHIO  
SALES OFFICES IN PRINCIPAL CITIES  
5 Great "U-S" Plants . . . Producing  
Quality Packaging and Advertising Materials



**GUARD AGAINST  
DEHYDRATION  
...USE WESTERN**

"EASY FILL"  
SQUARE-TYPE  
BAGS *positively*  
SEALED WITH  
WESTERN *liquid*  
*lock* WELDED SEAMS



**WESTERN PRODUCTS INCORPORATED**  
*Creative Engineering in Packaging and Plastics*  
NEWARK, OHIO

CONVERTERS OF LAMINATED AND COATED METAL FOILS, TRANSPARENT FILMS, METALS AND PAPERS

**ERN**  
FROZEN FOOD  
PACKAGES

WITH

*Pliofilm*

TM REG. U.S. PAT. & TM. OFF. THE GOODYEAR TIRE & RUBBER CO.

**BAGS**

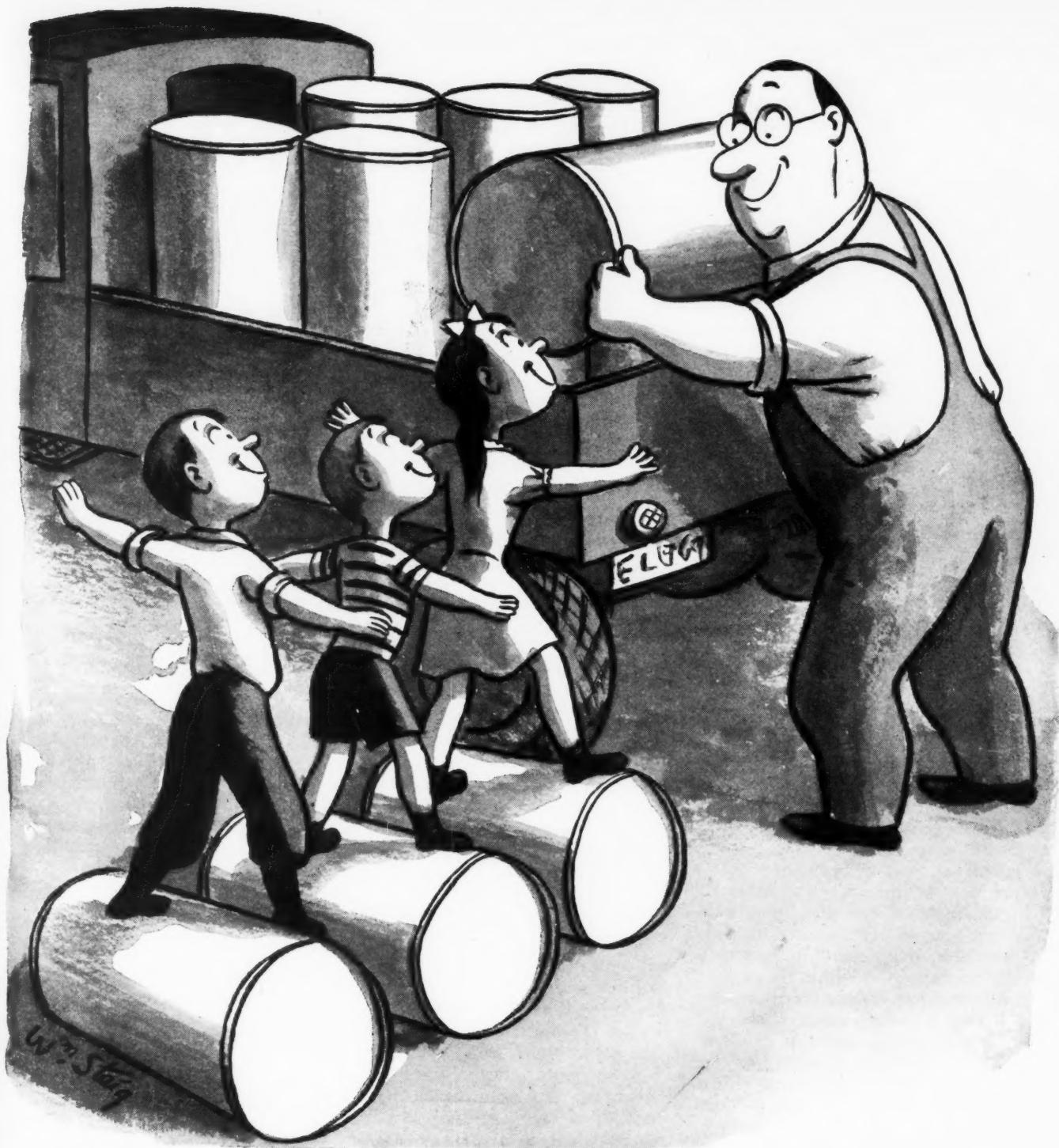
- LIQUID-TIGHT
- MOISTURE-VAPOR PROOF
- EASY TO SEAL

*Remain Strong and  
Pliable at Freezing  
Temperatures*


More and more processors are coming to Western for Frozen Food Packages. Equipped with easily filled, easily sealed, square-type Pliofilm bags that remain strong and pliable at freezing temperatures, and with Western positively sealed, LiquidLock Welded Seams, these containers provide better protection against product dehydrators.

Troubled with "leakers"? Consult Western packaging engineers on this and all other frozen food packaging problems.





*"The bigger the family — the better the service"*

<p>CONTINENTAL</p>  <p><b>PAPER</b> DIVISION</p>	<p><b>CAN COMPANY, INC.</b></p> <p>PAPER DIVISION Headquarters 330 W. 42d St., New York 18, N. Y.</p> <p>MONO NESTED AND CYLINDRICAL CONTAINERS COMBINATION PAPER-AND-METAL CANS</p> <p>FIBRE DRUMS The Container Co., Van Wert, Ohio</p> <p><small>Sales offices in all principal cities</small></p>
---	---

You'd think that Continental—one of the largest producers of fibre drums in the world—would be able to deliver enough on time. We would, too, if our plans for 100% plant and expansion had gone through on schedule. But, like everyone else, we've been held up by adverse conditions. When we get rolling at full speed again, you'll be able to depend on Continental for not only the best in quality, but the best in service, too.



# Strange things are happening in "PACKAGE LAND"

Yes, though far removed from the acts that tickled a boyhood fancy, strange things are happening behind closed doors to produce better packaging materials for you.

Research has provided definite answers to some of the most puzzling problems of packaging, and the three products described here are outstanding examples of this progress.

## AQUASTOP MP\*

Originally designed and successfully used to protect finished machine parts from damage by corrosion, mold or fungus, AQUASTOP MP has given remarkable results when used in other applications. Use of Aquastop MP provides a "breathing package" with an MVT rate of as high as 10 grams per 100 square inches per 24 hours, preventing damage by condensation within the package due to temperature changes. It may be heat sealed or chemically sealed to give a positive waterproof seal as strong as the material itself. Aquastop MP is strong, resilient, scuff-proof, does not flow, crack, become tacky or lose flexibility over the range from  $-20^{\circ}\text{F.}$  to  $170^{\circ}\text{F.}$ , and remains waterproof indefinitely. Furnished in panels for case liners or pre-fabricated bags to your size specifications.

## AQUASTOP FP\*

Aquastop FP, while possessing qualities similar to Aquastop MP, is especially processed to provide a material that is non-toxic and odorless. Designed for packaging perishable products such as fresh fruits and vegetables, fish and other seafood, certain chemicals, and many other products shipped in bulk by air or ground transportation. It may be used as heat sealed bags or as case liners for wire bound boxes or crates. Permeable to "dry ice" gas emanations, but impermeable to water from water-ice, Aquastop FP is safe for sea level or altitude flying, protecting contents which it encloses without damage to other units in the same plane load. Drop a line to us stating your problem and we shall be glad to assist you in solving it.

## M-V-BAR\*

M-V-BAR is similar to Aquastop MP and FP in construction, but is essentially designed as a positive moisture vapor barrier possessing high strength and resistance under conditions of high relative humidity. M-V-BAR is designed for use under those conditions where rigid control of moisture or moisture content is of primary importance. M-V-BAR is finding wide acceptance in the packaging of certain chemicals, explosives and special papers. This material is furnished in panels for case liners or in pre-fabricated bags to your size specifications. M-V-BAR can be heat sealed or chemically sealed. Ask us to show you how and why M-V-BAR can be as valuable to you as it has been to others. Just drop us a line and we shall be glad to send you complete information.

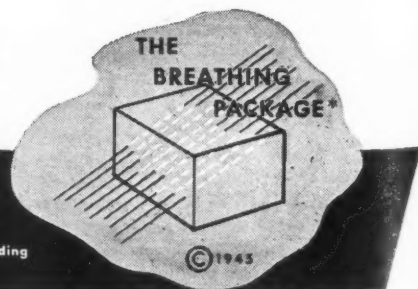
\*Trademark Reg. U.S. Pat. Off.

## PROTECTIVE COATINGS CORPORATION

Manufacturers and Consultants  
681 Main Street • Belleville 9, N. J.

# AQUASTOP

\*Pat. Pending





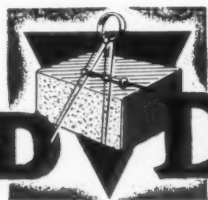


**IMPROVED PACKAGING INCREASES PROFITS**

**B**etter packaging brings bigger profits, and today's leaders in the retail store field are spending more time, thought and money on the choice of "take-home" boxes.

Packages — whether the patented "pop-up" pie box of the corner bakery or the colorfully decorated box from milady's smart specialty

shop — build increased sales. Old Dominion retail boxes, the favorite of the trade, are achieving this at lowered cost because of "know-how" and volume production. It's another good reason why you should investigate Old Dominion's complete line of planned packages. Your products deserve them.



Write today for completely illustrated RETAIL BOX FOLDER, to Old Dominion Box Company, Inc., Dept. 33, Charlotte, North Carolina.

**OLD DOMINION**

*Box Company Inc.*

PLANTS LOCATED THROUGHOUT THE SOUTH  
NEW YORK REPRESENTATIVE  
228 EAST 45th ST., NEW YORK 17, N. Y.  
Phone MUrray Hill 2-6492

**CHARLOTTE • N. CAROLINA**

PRECISION BUILT PAPER BOXES AND PACKAGING MATERIAL

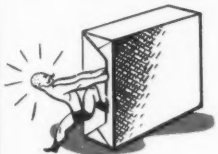
**FOIL FRESH  
CANDIES...**

**LOOK BETTER...  
KEEP BETTER WITH**

**REYNOLDS**

**HEAT-SEALING**

**REYSEALWRAP**



**1. Heat seals tightly and the seal stays closed**

When heat is applied to surface, wax bleeds through porous tissue to form a tough fiber-reinforced, leakproof seal.



**2. Moisture vapor can't get in . . . or out**

A thin metallic shield of pure aluminum forms a positive barrier to moisture-vapor transmission. No dehydration; no added moisture can get in.



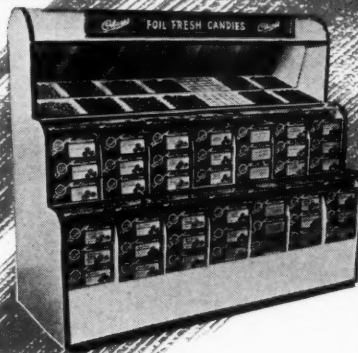
**3. Destructive light rays turned aside**

Light rays harmlessly bounce off Reyseal . . . no loss of flavor . . . no discoloration.



**4. They reach for the sparkle of foil!**

Reyseal with foil surface outside gleams and sparkles from the shelf . . . attracts and sells customers.



Counter display by the Chase Candy Company of St. Joseph, Missouri, showing "Foil Fresh Candies" wrapped in Reyseal.

Heat-sealed quality protection and brilliant, sparkling display are combined in Reyseal . . . the sensational

new flexible packaging material now in use for confectionery products.

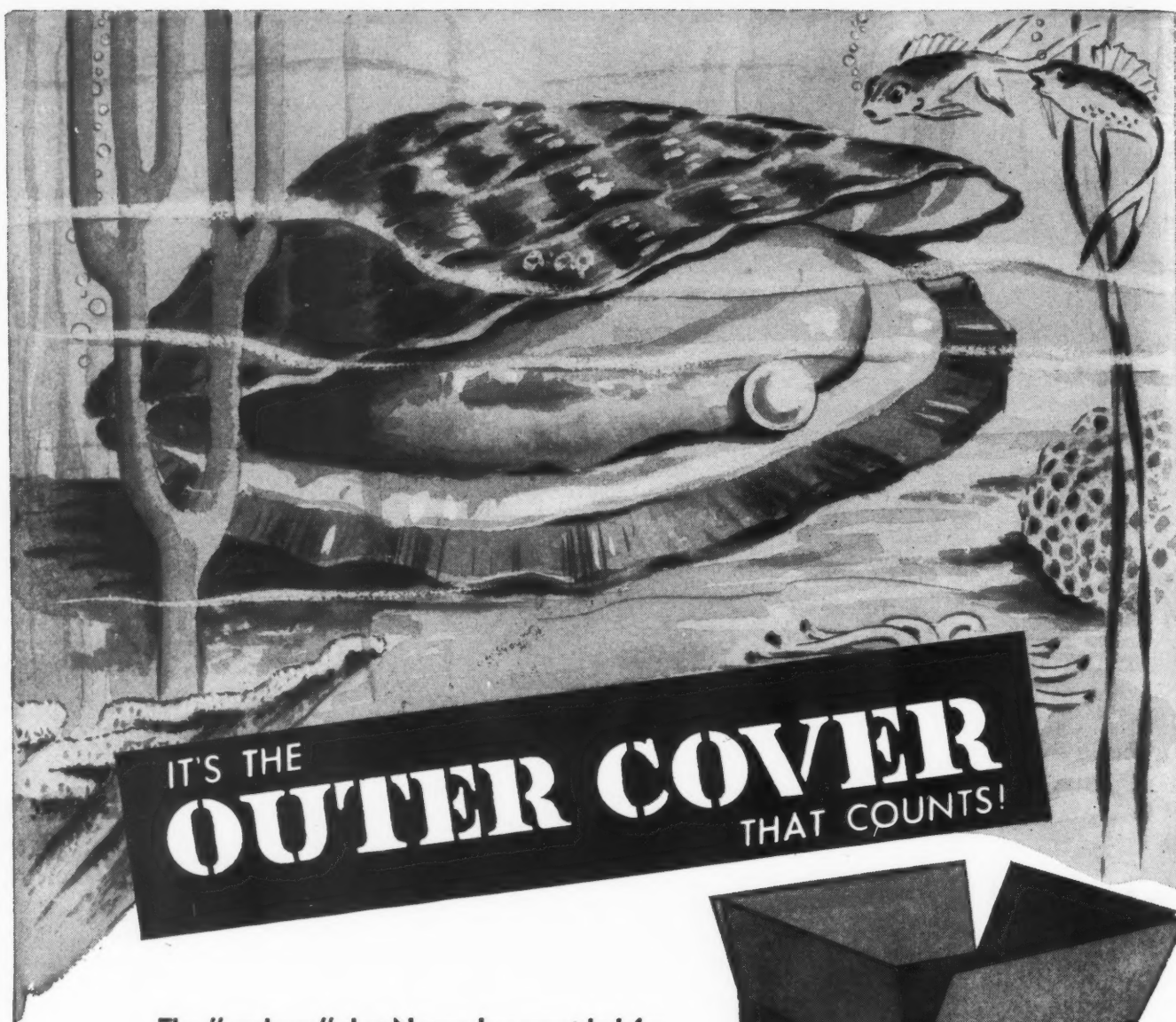
Reyseal can be used as an overwrap for cartons as shown above; as a sealed bag for hard candies; or as an intimate wrap on individual pieces. Reyseal can be thick or thin . . . the foil surface can be outside or inside. It stays clean and sanitary through long periods of counter display. Beautiful full-color reproductions can be printed right on the foil surface giving added sparkle and luster to the package.

Reyseal is easy to handle . . . economical to use. It may be applied by hand or by fully automatic equipment designed for heat sealing. For further information write Reynolds Metals Company, Foil Division, Reynolds Metals Building, Richmond 19, Virginia.



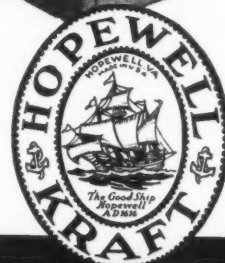
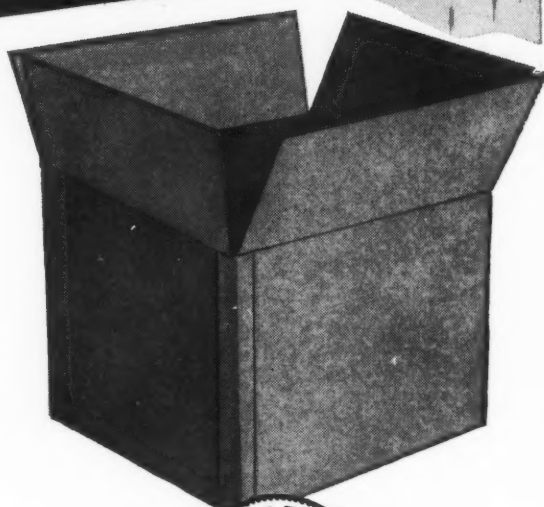
# REYNOLDS ALUMINUM FOIL





IT'S THE  
**OUTER COVER**  
THAT COUNTS!

The "package" that Nature has provided for the oyster has been evolved through eons of time until it is perfect for the purpose. You can't wait that long for the perfect container. You don't have to. Because we are Board specialists Hummel-Ross probably has a product which will fill your requirements exactly. Or, if necessary, we can originate and create the Kraft product you need.



Originators • Creators

**HUMMEL-ROSS** FIBRE CORPORATION

Hopewell, Virginia, U. S. A.

# 7 Advantages OF A CELLULOSE PLASTIC PACKAGE *for Your Product*

**A**N extremely versatile packaging material, Cellulose Plastic offers you an extensive choice of styles . . . fits nicely into your budget, too. Consider these outstanding advantages of Cellulose Plastic:

- 1. It can be molded into any shape**
- 2. It's resilient—cushions against shock**
- 3. It's extremely light**
- 4. It's exceptionally strong**
- 5. It can be colorful**
- 6. It can be waterproofed**
- 7. It's inexpensive**

Interested in a display package that's a colorful eye opener? Prefer a novelty presentation? Or does your product require extra protection against moisture and transportation hazards? Cellulose Plastic can serve your specific needs. Tell us what they are. We'll help you develop a package that's the utmost in customer appeal, sturdiness and economy.

*Molded Products Division*

ANIMAL TRAP COMPANY OF AMERICA • LITITZ, PA.



# Your Package

*should be Seen  
but not Hurt!*

# ZAPAK<sup>\*</sup>

## HIGH-GLOSS PACKAGE COATINGS

*insure Lasting Protection  
and Greater Sales Appeal!*

ZAPAK Package Coatings are in use on paper, foils and other packaging materials not only to give *lasting* beauty and eye-appeal, but to give maximum protection to many nationally known products. On labels they both brighten and protect printing. Moreover, you can heat seal both the label and the package. Available in colors and metallics.

**Here are 8 definite advantages:**

- |  |                                   |
|--|-----------------------------------|
| 1. High gloss                                      | 5. Tasteless, odorless, non-toxic |
| 2. Heat sealable                                   | 6. Lasting flexibility            |
| 3. Moisture-vapor resistant                        | 7. Water white                    |
| 4. Alcohol, grease, oil, acid and alkali resistant | 8. Resistant to mold              |

Correct package coating technique is the result of cooperation between the experienced package specialist and the coating manufacturer. Zapon technicians will be glad to work with you.

\*ZAPAK - Reg. U. S. Pat. Off.



## ZAPON DIVISION

### ATLAS POWDER COMPANY

*Complete Manufacturing . . . Research . . . Sales*

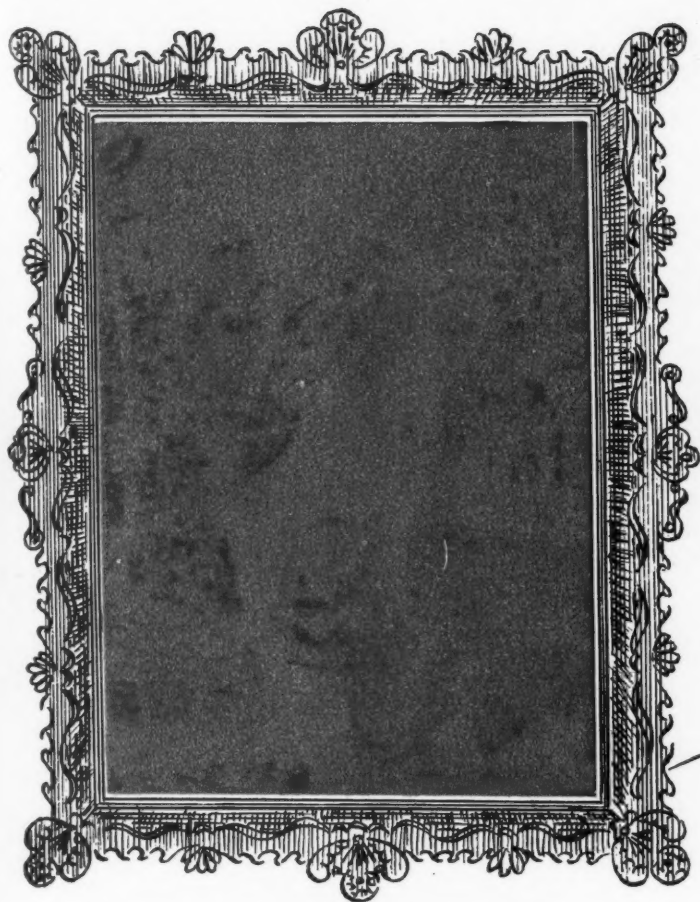
Stamford, Conn.

North Chicago, Ill.

**SPECIALIZED PRODUCTION FINISHES . . . *Doing Tomorrow's Job Today!***







# *Veloursheen*

Portrait of a  
**SUCCESS**

• PLEASE ~~DO NOT~~ TOUCH •

*Touch appeal* that doubles the effect of visual impression and gives the decisive sales punch is one of the many extra features that has made *Veloursheen* the most spectacular success in display packaging.

20 SALES-TESTED COLORS  
RANGING FROM SOFT  
PASTELS TO DARK SHADES

AVAILABLE IN THREE WEIGHTS  
DRAPING • BOX • BOARD  
(shown)

*Write for Samples*

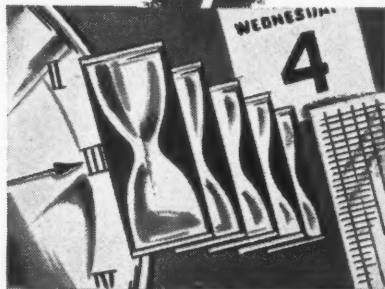
**BULKLEY, DUNTON & CO.**

INCORPORATED

295 MADISON AVENUE, NEW YORK 17, N. Y.

BOSTON 10, 143 Federal St. • CHICAGO 16, 2635 S. Wabash Ave.

LOS ANGELES 13, 124 W. 4th St.



● Must the adhesive set in one-tenth of a second or ten minutes?

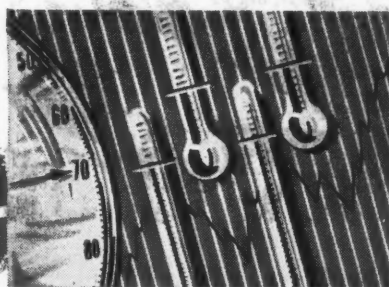
● Must the adhesive bond last three months or thirty years?

**time  
temperature  
humidity**



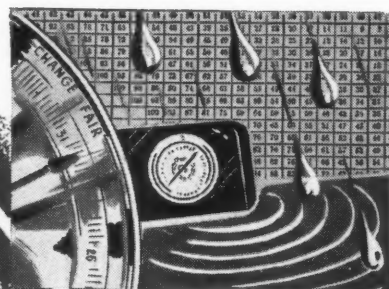
■ Whatever the condition, the Union Paste Company will scientifically tailor an answer for your problem . . . an ordinary packaging or assembly job, or perhaps an entirely new project. The **UNION PASTE COMPANY** specializes in creating adhesives to meet your own particular requirements in every way.

For further information, please write today.



● Must the adhesive be applied under extreme cold or extreme heat?

● Must the adhesive bond stand up under such extremes?



● Must the adhesive be applied under dry or moist conditions?

● Must the adhesive bond undergo humidity extremes?

ADHESIVES FOR ALL PAPER, TRANSPARENT FILMS, AND ALLIED CONVERTING FIELDS

**THE UNION PASTE COMPANY**

1605 HYDE PARK AVENUE

HYDE PARK, MASSACHUSETTS

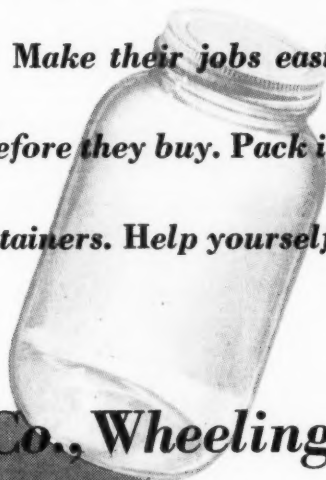


# Searching Party

Any day, at any dealer's, you can see them  
—a searching party for goodness and for nutrition.

*Make their jobs easier. Give them a pre-  
view before they buy. Pack in H-A Glass*

*Containers. Help yourself to more sales.*



**Hazel-Atlas Glass Co., Wheeling, W. Va.**



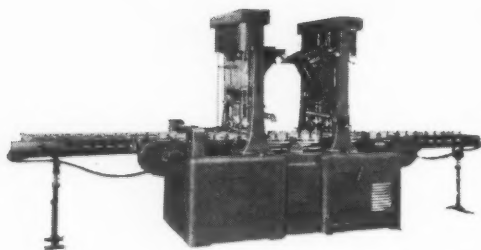
# US

Manufactures Machines For

NET WEIGHING  
GROSS WEIGHING  
PACKING  
PACKAGE  
FORMING & FILLING  
CARTONING  
CARTON SEALING  
CARTON LINING  
CARTON WRAPPING  
PAPER BOX FORMING  
PAPER BOX COLLAPSING



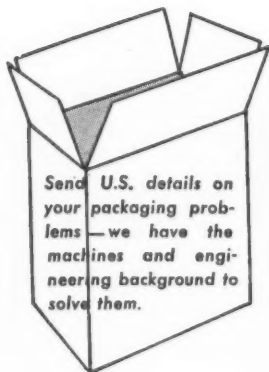
... they chose **US**



**MODEL JN  
FULLY AUTOMATIC PACKER,  
FILLER, PACKER WEAHER**

The model JN four station automatic filling machine was chosen by the packers of the jars and cans illustrated because it has so many cost-saving features. It will pack, or pack and weigh, automatically all types of powdered and granular materials. It is fast—filling up to 120 containers per minute—and accurate—maintaining the closest possible commercial tolerances. In addition, by the turn of a knob, the JN can be quickly adjusted to control weight variations due to change in density of product. Also, it can be easily adapted to suit the size and type of container required for the material handled.

Operation of the JN is completely automatic—and clean as a result of the dust collector hoods and drip-free shut-off gates at the filling stations. It will pay you to send for the complete details of this filling machine that pays for itself through savings in labor costs alone. Write **US** today.



Send U.S. details on your packaging problems—we have the machines and engineering background to solve them.

# US

*Automatic Box Machinery Co. Inc.*

Owning and Operating

NATIONAL PACKAGING MACHINERY CO. • CARTONING MACHINERY CORP.

18 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: NEW YORK CLEVELAND CHICAGO  
LOS ANGELES (KRUGH EQUIPMENT & SUPPLY CO.)

TONIGHT: WARM

under the new General Electric  
Automatic Blanket



IN A

*Lumarith*  
TRANSPARENT *Plastic* BOX

Luxury item or necessity, high-quality products such as the General Electric blanket deserve the very best in display packaging . . . That means LUMARITH transparent containers as beautiful as the other lovely LUMARITH plastic accessories found in the modern home today: hatboxes, shoeboxes, garment bags, coat hangers, etc.

Crystal clear and easy to form, LUMARITH plastic transparent sheets for packaging maintain their flexibility and satin-smooth surface indefinitely. They cement easily and permanently, and take multi-color printing as beautifully

as coated paper. For the product that deserves a showcase of its own, the transparent rigid container made of LUMARITH PLASTIC is the packaging method to plan on. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y.

FORTICEL\* LUMARITH\* CELCON† CELLULOID\* VIMLITE\*

*Celanese\*Plastics*

\*Reg. U. S. Pat. Off.

†Trademark

**SEE THIS FIRST DISPLAY**

**MAKE YOUR OWN BAGS!**



*Kono-Mead*

**HIGH SPEED  
BAG-MAKING  
MACHINES**

We are now exhibiting at our Flushing, L. I. headquarters the amazing high-speed electronically controlled bag-making machines which produce heat-sealed bags with glue reinforcements at the rate of 5,000 to 12,000 bags per hour—with only one operator!

**NOW READY  
FOR  
DELIVERY**

These high-output, low-cost bag-makers are coming off the assembly line daily. Come and see them in operation. If you wish, you may place your order at the exhibit.

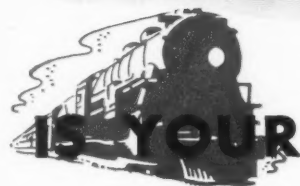
**KONO-MEAD EQUIPMENT CORPORATION**

133-23 35th AVENUE • FLUSHING, LONG ISLAND, N. Y. • TEL. FL. 3-8113





Courtesy of United Air Lines



## IS YOUR PRODUCT TRAVEL CONSCIOUS?

Among the world's most widely traveled products are the hardware, small tool and machine parts that make up the day by day over the counter, warehouse and tool crib components of our major manufacturing and construction trades. It's a half billion dollar business, moving relatively heavy items requiring shipping containers that must stand the rigors of travel and still be attractive for display. The War brought new metals, automatic machinery and mass production, and reconversion is bringing

new merchandising problems. The trend is toward better distribution, safer travel, thanks to set-up boxes.

Only set-up boxes can give you the versatility that gives added strength and greater sales appeal.

Write directly to national headquarters for your copy of the survey, No. 85, "Hardware, Small Tools and Machine Parts", published and copyrighted by the Postwar Planning Committee of the National Paper Box Manufacturers Association.

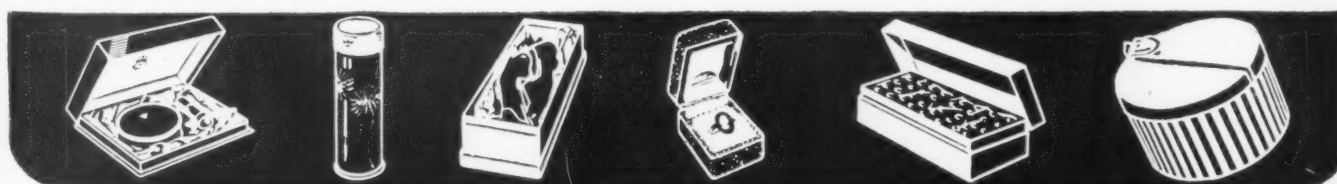


### NATIONAL PAPER BOX MANUFACTURERS *Association*

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia 7, Penn.

FOR INFORMATION OR SERVICE • CONSULT YOUR NEAREST SET-UP BOX MANUFACTURER



# 5 REASONS

*Why you can't afford to miss the*

**1946-47**

## **MODERN PACKAGING ENCYCLOPEDIA**

*(Formerly Packaging Catalog)*

- 1 First Peacetime Packaging Encyclopedia. The new 1946-47 edition is pointed at competitive peacetime markets.
- 2 More than 1000 pages, accurate, up-to-the minute information on every phase of packaging activity—planning and development through merchandising and display.
- 3 Comprehensive, complete, authoritative, covering every facet of modern packaging. Written by authorities—edited by experts.
- 4 Contains indispensable information for designers, wholesalers, retailers, consultants.
- 5 Largest and most beautiful edition ever published of the only encyclopedia of packaging in the world.

*Editions Limited*

*Order Yours Today!*

Price: **\$5.00** per copy    **\$6.00** foreign

**PACKAGING CATALOG CORP.**

122 East 42nd Street

New York 17, N. Y.

Moisture-Free means

# Factory Fresh.....



Products "Dry Packed" with Desiccite are protected against damaging moisture. Metal products reach the ultimate user free from damaging corrosion—bright with "Factory Fresh" sales appeal.

Foods retain their freshness, crispness and taste.

Desiccite—a Filtrol product is the new, highly efficient, *low-cost* drying agent. A small quantity placed inside an adequately moisture-proof package or shipping container protects the contents.

Filtrol engineers will gladly consult with you on your packaging problems. Write today for full information.

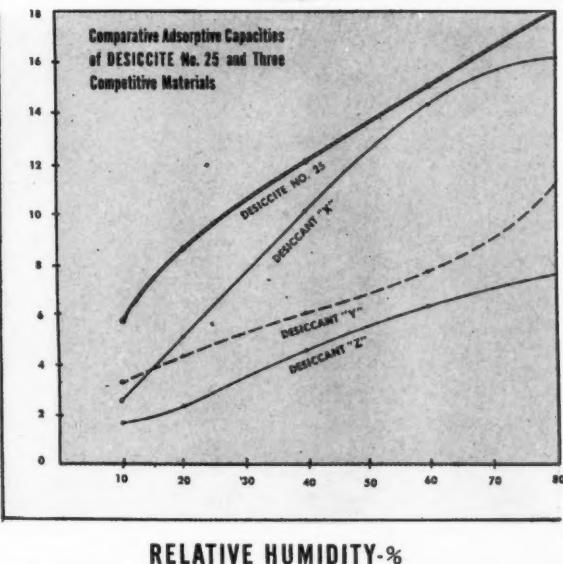
## Dry Pack with DESICCITE\*

\*Reg. U.S. Pat. Off.

"GRADE A"

*a Filtrol Product*

WEIGHT H<sub>2</sub>O ADSORBED BY 1 CUBIC FOOT DESICCANT



The above comparison of desiccants represents the four most widely used types, namely Desiccite No. 25, Activated Alumina, Anhydrous Calcium Sulphate and Silica Gel.



*If you don't see what you want*



#### Key

*Top shelf, left to right:* Boxes of FELS-NAPTHA SOAP CHIPS; CRAY; BREAD WRAPPERS for individual loaves and crackles; Tite-Wrap cellophane for various uses; cups; Mugs; Wraps for individual cereals; Candy cartons; other confectionery.

*Third shelf, left to right:* Cellophane printed wrappings; Tite-Wrap cellophane wrappers for individual cereals; Printed cellophane wrappers for cookies.

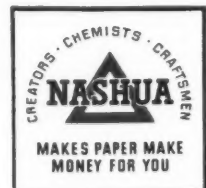
*Second shelf:* Box, fancy and decorative papers; At right: Velour paper backing for picture frame.

*Bottom shelf, left:* Assortment of SURE-HOLD Laundry Packaging Aids; Right: Typical assortment of NASHUA Bread Wrappers.

In this display cabinet are only a very few of the hundreds and hundreds of paper products we manufacture; however, they will show you the wide variety of uses to which NASHUA papers and packaging materials are put. In the column at the bottom is the key that identifies the different products you see in the cabinet. But if you don't see what you want . . .

*Just ask for it!*

Because if it's at all similar to any of the packaging materials in the cabinet, NASHUA probably makes it and undoubtedly makes it better!



**NASHUA GUMMED AND COATED PAPER COMPANY, NASHUA, N. H.**

# MODERN PACKAGING

VOLUME 20

NOVEMBER 1946

NUMBER 3



The three packages on right, from three different pharmaceutical manufacturers, illustrate balanced design with the proper emphasis on the salient features. Neo-Synephrine package was recently redesigned in accordance with modern marketing principles and the old package is shown at far left for contrast.

## "COORDINATED MARKETING"

The curtain is going up on a new drama of selling that puts the package squarely in the spotlight

by Ray C. Brewster\*

In the pharmaceutical field the merchandising orchestras all over the country are playing the overture as the curtain rises on a dramatic era which some are calling the era of "Coordinated Marketing."

Of course, as in most dramas, there is nothing radically new about the plot. It has been said that there are less than a score of underlying plot themes available to dramatists and the merchandisers are no less limited.

But, as do the playwrights, we salesmen and merchandisers have a habit of dressing up what is old and fundamental, and presenting it with a flourish to our

palpitating publics. If fundamentals remain constant, the scenic surroundings do change, and if we key the fundamentals to the altered vista, we wake up, as the saying goes, with a hit on our hands.

"Coordinated Marketing" may be such a hit.

Let us examine it, first, from the aspect of why this old idea, rolling around into new business conditions, may prove to be sure fire; secondly, from the standpoint of its present all-star cast, with packaging taking the spotlight.

There was a time—and not too long ago, either—when advertising was little understood and somewhat frowned upon in the pharmaceutical industry. The

\* Vice President in charge of sales, Frederick Stearns & Co. Division, Sterling Drug, Inc.



retailer's prestige and his ability to cooperate with the manufacturer were what really counted.

High-Powered Advertising then flexed his muscles and strode out on the stage as the hero of the play. This protagonist proclaimed that he created public demand which the retailer must supply. He played his part well, although the expected support from the retailer was somewhat feeble and the results did not rate five stars from all the critics.

Came World War II, and. . . Sellers' Market became the star. High-Powered Advertising moped in the wings, while a goods-hungry public snapped up whatever there was to buy.

During the war years the drug and pharmaceutical industry, aided by fair trade laws, had been able to maintain low prices. Today, however, distribution costs are threatening to rise. Wholesalers are making Herculean efforts to prevent the "inflation and bust" tragedy, and the manufacturers are rushing to the rescue, too.

To keep distribution costs down, wise merchandisers have agreed that both Advertising, a part played by the manufacturer, and Retailing, assumed by the merchant, must really portray some hot love scenes. Indeed, Advertising and Retailing had best march up to the altar and get married. It looks very much as if a shotgun wedding is in order.

To shift abruptly from metaphor to plain business English, both advertising and retailing must become more effective than they have been in recent years, since they are the inseparable partners of distribution.

How to make them more effective is the theme of the new drama on which the curtain is now rising, and to which, as we have said, the title "Coordinated Marketing" has been given.

Advertising resumes his important role, but, if he is the hero, an equally important character is the heroine, Miss Retailing. In "Coordinated Marketing" the costumes Miss Retailing wears are highly important to the plot.

Retail drug stores today are dressing themselves up as never before. In the trade, this costume complex is

called store modernization. The syndicate and chain stores have taken the lead in running to their couturiers. Revealing—to say the least, even daring—as to décolletage are the high-fashion gowns being worn today by the modernized chain drug and syndicate stores.

In the jargon of merchandising rather than the theater or the fashion salon, the modernized retail chain drug stores and syndicate stores are going in for wide open displays. These stores are also being departmentalized. Instead of being placed on shelves behind glass counters, drug store products—classified as to prescription specialties, baby goods, cosmetics, cough and cold remedies, dentifrices, and the like—are being placed tantalizingly close to the prospective purchaser on open counters.

With the point-of-sale market thus more closely coordinated with the advertising of the manufacturer than ever before, visual or impulse selling has become a major character in the dramatis personae. With Advertising and Impulse Selling completing the inevitable love triangle with Miss Retailing in this drama of Coordinated Marketing, we find the spotlight being focused in its brightest glare upon Packaging,

And Packaging, my friends, most definitely deserves the featured role it is assuming. As the merchandising orchestras continue to play their overtures on the coming drama of Coordinated Marketing, the backstage make-up artists are concentrating on raising package appeal to new heights of glamour.

Both the chains and the syndicate stores are proving conclusively that open display and impulse selling are highly successful stars on the merchandising stage. Syndicate stores, according to current reports, get 87% of their sales from impulse buyers. Slower to modernize their places of business, the independent druggists today are getting only 8%, but they are waking up to the possibilities—and fast. The old days when drug retailers kept 97% of their merchandise virtually out of sight are vanishing.

Since an increasing share of the total drug business is being accomplished by Impulse Selling, the fact that Advertising must take a proprietary interest in Packag-

Functional interpretation is illustrated by these packages, each of which, in its own way, suggests the use of the product within.





*Proportion is achieved in these packages. A frequent package design mistake is the failure to proportion the type block to the package. A rectangle is always much more interesting than a square.*



ing has become apparent. Package design deserves studious attention from the drug manufacturers and, believe me, it is getting it. *Advertising will not and cannot be fully effective if it is hampered by ineffective product presentation at point of sale.*

The studies the writer personally has made in recent months on packaging have led him to the conclusion that the rational approach to package design is based on three concepts: namely, that all business is local; that a design is right only if it fits the customer's ideas of right, and, finally, that the quality of a product is often first and convincingly visualized by its package.

By the statement that "all business is local," I mean that we always must remember the fundamental fact that every single business transaction in the drug field involves its own local customer, the dealer, and the package. In this local picture each and every package is in competition one with the other. Visual selling requires careful study by manufacturer of the competitive aspects of his packages. If a package fails at the point of sale, his advertising is dealt a stiff body blow. Accordingly, package designing must be undertaken in the spirit that business is local, highly competitive, and that a product can never be entirely presold. Before sending a product out to compete in the local market place the package designs of all competitive products should be carefully analyzed and every precaution taken to make certain *your* hero will be given a fair break in the glaring spotlight that lies ahead with the advance of open displays and visual selling techniques.

Once this concept is recognized, the second follows along naturally: namely, that a design is right only if it fits the customer's idea of what is right. In almost every organization there are always plenty of Helpful Harrys eager to put in their two cents' worth when the matter of packaging comes up for discussion. The Unlucky Joe responsible for the job, rather than trying to reflect the variety of opinions of those ever-present Helpful Harrys within his organization, had better seek customer reactions to the designs he is preparing. Too often the person who may want to buy the product is absolutely ignored.

Today, realizing the growing importance of coordinated marketing, we are making it a practice to test new package designs in merchandising stores. We take our different idea samples and put them into the open displays to test consumer reaction at first hand. We have proved beyond quibble what looks like an obvious fact: that the consumer-engineered package stands the best chance of being bought.

A good product deserves the finest package money can buy. Frequently money and sales are lost by failure to grasp the final concept of a rational approach to packaging; i.e., that the quality of a product is often first and convincingly visualized by the package. You can spill floods of printer's ink in advertising and you can fill the air with broadcast commercials and still be surprised at the number of persons whose first idea of the quality of your product will come from seeing the package in which it is dressed in some neighborhood store. It has been a sad fact in the past that too few drug manufacturers have tried to sell quality by package design. I see this attitude rapidly changing as the curtain goes up on "Coordinated Marketing."

Toiletries and cosmetics manufacturers saw the light long ago. It's easy to see why. They were appealing almost entirely to the ladies, who primp and powder and carefully select what they are going to wear. They noted how the women consumer-engineer their daily appearance, and acted accordingly in package design. Now makers of more prosaic drug and pharmaceutical items are beginning to realize that they can talk most intimately about the quality of their products to potential buyers, whether they are men or women, through the packages in which they send them out to compete on the open displays in the stores.

The advent of open displays and visual selling, the fact that all business is local and that the customer is the deciding factor in sales, making customer-engineered packages imperative—these facts have pharmaceutical manufacturers running as fast as their legs can carry them into the serious study of package copy and design.

In copy we have to give considerate attention to legal requirements. Otherwise, the problem is rather easily



Two packages on left play up company identification as brand name, capitalizing on prestige of name built up through advertising. In third package, heavily advertised brand name "Ipana" is featured while company name is restricted to small type.

resolved into stating clearly the name of the product, what it is for, who makes it and the quantity. An important consideration, however, is raised by the question of whether in fitting the company name into the package design we should seek to establish a uniform line identification or follow what might be called the "confetti" type of packaging, in which each package is individualized. In our company, we determined upon line styling.

In this decision we considered the experience of Squibb in our field. This company, we believe, has demonstrated the advantage of line merchandising since through this policy Squibb has won a consumer, dealer, and medical franchise for the company name.

By putting packaging under the spotlight in the coming drama of coordinated marketing, we found seven emphatic elements which we became convinced were essential to give package design visibility, readability and memorability. We listed these elements as: unity, emphasis, functional interpretation, balance, proportion rhythm and grace.

It is surprising, when modernizing packages, how many diverse thoughts you can omit. The omission of extraneous ideas produces the unity that is the first requisite of a good package design. Singleness of thought we have found, is absolutely essential to singleness of effect. This kind of unity, in which the entire story of the product is available and rememberable in one glance, is earnestly to be desired in today's open display competition. Invariably when you achieve unity you produce a clean, aggressive-looking package.

A close relative of unity is emphasis, which may be achieved by typography, by proper spacing, by proper use of white space—as illustrated in Fig. 1. Sometimes the company's name, if it has been extensively advertised, deserves chief emphasis. A case in point would be the products of the Charles H. Phillips Co. The name Phillips, because of advertising through the years, has become naturally associated with Milk of Magnesia. In Phillips' products, therefore, the company name is generally and correctly given the most prominent emphasis above the type of product, whether it be a skin

cream or a toothpaste. Generally, however, the type of product itself, its strength and use require the readability and visibility which is obtained through the judicious use of emphasis in the preparation of the label.

Amolin deodorant cream, also illustrated in Fig. 1, places proper emphasis on the name with significant secondary emphasis on "cream" and almost equal emphasis on "deodorant."

The Neo-Synephrine package shown at the left in Fig. 1 represents our old design and a glance reveals many weaknesses. There is a lack of completeness, a lack of proper emphasis. The package is out of balance and lacks appeal. The new package (shown next to the old) provides a more wholesome reaction, white being a good medium for emphasis and purity. The words "Neo-Synephrine Hydrochloride" are spaced out for readability and visibility. Proper emphasis is placed on the strength of the product, whether it be a solution, jelly, emulsion or capsule, and how the product is administered—i.e., orally, intranasally, etc. The new design avoids confusion and has a cleaner, fresher and more aseptic appearance.

Generally speaking, most products provide some opportunity to incorporate functional interpretation. In Fig. 2 different ways of showing quickly and clearly the use of a product are pictured. Notice, for instance, that the Energine Lighter Fluid package has a squeeze-it container with the opening plainly designed to fill a cigarette lighter. The art work on the Tender Age Baby Oil package pictorially associates the product with babies. Other Tender Age products, such as the Chest Rub, use older youngsters as well as the tiny infants in the art, thus deepening the Tender Age market by age groups. In the same way the emphatic placement of the two well-groomed feminine and masculine heads illustrating the Double Danderine package shows quickly and exactly that the product is for the hair of both men and women.

Johnson & Johnson, in their Baby Oil package, also shown in Fig. 2, employ still another method of letting people know that the product inside is for the tender ministrations of one dearly (Continued on page 170)



# Yeast machine *makes and dates 85 packages per minute*

**A**mong the first new postwar machinery installations is the unit packaging equipment recently put in operation by Standard Brands for the packaging of Fleischmann's Fast Rising Dry Yeast at its plants in Pekin, Ill., Peekskill, N. Y., and in Canada.

These machines, specially designed for the yeast packages, take printed thermoplastic coated glassine in rolls, form it into packets, heat seal four sides, date the bag as it is made, fill and deliver the completed packages on a production conveyor belt in consecutive order at the rate of 80 to 85 per minute.

Development of the machines was started in 1940, but, due to the war, production was completely halted until this year. Prior to the use of the new machines, the dry yeast, which has gained favor because of its longer shelf life in comparison with the yeast cake which must be kept under refrigeration, was packaged in small envelopes sealed on two sides and folded and sealed top and bottom.

The increasing demand for the dry yeast encouraged Standard Brands to look for a more efficient package with a better seal, that could be produced automatically at high speed and that would date each package to assure a fresh product.

The new machines use the same packaging material developed for the old packages—thermoplastic coated glassine printed in four colors, supplied in continuous rolls. An outstanding feature is the control device for accurate registration of the printing on both front and back of the package.

Thermostatic control of the sealing dies and a thermometer at the operator's eye level provide accurate heat control at all times. A flange crimp seal is made by the machine across and with the paper grain all around the package to eliminate all possibility of sifting. Rounded corners of the seal prevent any of the fine light-flowing yeast from sticking to the inside of the bag when the consumer empties it, an important factor in assuring accurate recipe measurements.

The yeast is loaded into a hopper at the top of the machine and the flow may be stopped at any time for threading the packaging material. The hopper is made of Lucite so that the quantity of material in the hopper may be observed at all times. The entire operation may be controlled either by hand or foot switch, as desired. The machine may be run to form one package at a time or to operate continuously, but it will always stop with the sealing jaws open so there is no danger of injury to the operator. All moving parts of the machine are guarded with heavy Lucite sheet so that the operation of the machine may be observed without danger. Further protection to the operator is offered by the control mechanism for cleaning and servicing the machines. When the hand wheel is engaged for ad-

justing or greasing, it is impossible to start the machine from operating position until the wheel is disengaged.

All parts are designed to facilitate cleaning. The sealing jaws pivot open. All feeding tubes, measuring devices and hopper parts are easily removable. All parts in contact with the material are chromium plated. Each machine operates on a  $\frac{1}{2}$ -hp. motor.

The total production of each machine can be handled by one operator who picks up the completed dated packages from the conveyor belt as they come from the machine and places them in multiples of 10 or 12 in display cartons. Operators check weigh the packages every 10 or 15 minutes, and can adjust continuously the accuracy of printing registration and heat control of the sealing mechanism.

CREDIT: Machine designed and built by Ivers-Lee Co., Newark, N. J. Processed printed glassine, The Dobeckmun Co., Cleveland, Ohio, and Shellmar Products Co., Mount Vernon, Ohio.

*Front and back of package and view of machine showing delivery of the completed packages in consecutive order.*





# WAXED FIBRE CAN



Seabrook Farms package for lima beans (upper right) represents first commercial use of a new type of single-ply fibre and metal package which is handily opened and emptied.

# FOR FROZEN FOODS...introduced by Seabrook Farms

The new Canco frozen food container—one of the first of the radically new postwar packages to enter this field—makes its bow bearing the label of Seabrook Farms, one of the pioneers of the industry and still the operator of the largest integrated freezing plant in the country.

After successful test runs, the first complete line for rapid automatic filling and sealing of the composite metal-fibre wax-coated package has demonstrated its potentialities in a full-scale run on the fall pack of lima beans at the huge Seabrook plant in Bridgeton, N. J.

According to C. Courtney Seabrook, president of Seabrook Farms, the new package and equipment have cut packaging labor requirements more than 80%, and preliminary indications are that freezing time is reduced about 25% and the capacity of the freezers thereby increased. Present production speed is 60 12-oz. packages a minute, but this will be doubled as soon as a second filler can be added.

## About Seabrook Farms

Acceptance of the new container by Seabrook Farms (corporate name: Deerfield Packing Corp.) carries considerable weight. From the time of his early association with Clarence Birdseye, at the very inception of the food-freezing industry, Founder C. F. Seabrook has been a stickler for quality and an advocate of better packaging to maintain the quality of his products.

In the Seabrook operation quality control is maintained all the way from preparation of the soil and selection of the seed and fertilizer to the final packaging and delivery of frozen foods to the distributor. The "Farms" part of the name is no misnomer. The company operates the world's largest vegetable farm—30,000 acres, stretching 45 miles through southern New Jersey—and is thus both a grower and a packer. The bulk of its vegetables for freezing come from its own fields, but there are in addition 600 contract growers, all closely supervised. The company's 1945 frozen pack is credited by *Fortune* with grossing \$16,000,000, and included 63% of all the lima beans frozen in this country.

Originally, Seabrook packed entirely under the labels of Birdseye and other leading distributors, but about three years ago he introduced his own Seabrook Farms label and he has been aggressively pushing his own brand and distribution system. The new Canco container has been applied first to the Seabrook Farms brand.

## The container and its manufacture

In more ways than one, the new container marks the entry of the can-making industry into the frozen foods field, seeking to hold whatever portion of food packing

may be diverted from conventional hot processing into the rapidly booming freezing industry. Continental Can Co., it will be noted, has developed a metal-ends fibre container very similar in makeup, and this also is about ready to be introduced.

The container is in the nature of a can, differing only in shape and in the fact that its sidewalls are fibreboard. Like the metal can, it is shipped with one end attached and with the second end to be attached after filling. Ends are, of course, attached by crimping. The paraffined body, made of 17-pt. bleached sulphate board, derives from the highly successful paper milk container. The wax coating is approximately 0.001 in. in thickness on each side of the board. The metal black plate ends are coated on the inside with a conventional inside can lacquer and on the outside with an aluminized finish. The process by which the ends are seamed onto the paper body is said to be the result of experience gained in manufacturing millions of special containers for TNT during the war.

On special manufacturing lines recently installed in three plants of the American Can Co., the container body is cut and printed with the packer's label, in one or two colors. The flat sheet is formed into tubular shape and seamed at the side with a positive adhesive in a simple overlap seal. In a large glass-windowed automatic machine, the body is heavily coated, inside and out, with paraffin wax, and dried. It passes through a die-seaming machine which attaches the bottom ends, and finally, after inspection, is packed for shipment in paper-wrapped bundles of 350. Closing ends are shipped separately.

The completed package, in the case of the Seabrook Farms 12-oz. lima bean size, is a brick shape approximately  $4\frac{3}{4}$  by  $3\frac{1}{2}$  in. and  $1\frac{3}{4}$  in. deep. It is attrac-

*The set-up containers, with one end open, arrive at the Seabrook plant in paper-wrapped bundles as shown; seven at a time are lifted off with a special fork and placed on the conveyor at left leading to packaging line.*

PHOTOS BY ED TAUBERT, COURTESY SEABROOK FARMS CO.

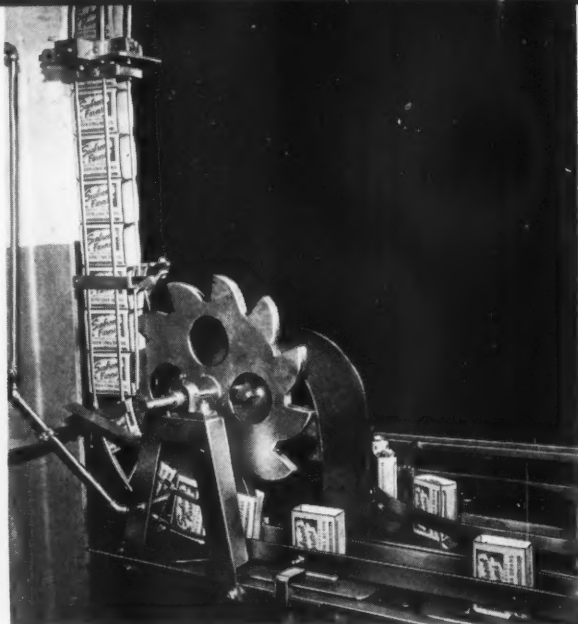




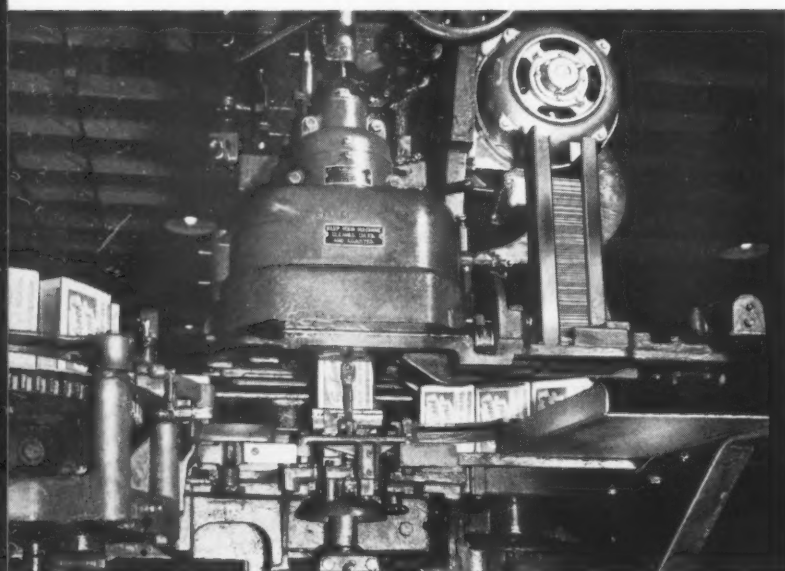
## Step-by-step story of Seabrook Farms packaging operation



**1** An over-all view of the packaging line, showing the filler in the background and the end-closing machine in the foreground.



**2** As empties arrive from floor above they are positioned exactly, on conveyor-line carriers.



**5** View from below looking into jaws of the special die-seamer which applies metal end to close the container.



**6** Die-seamer is completely automatic. As packages emerge they go on trays to take them through freezer.

tively printed in red and blue (including cooking times and directions), the colors being slightly dulled and given a "frosted" effect by the paraffin coating. The unique feature of this container is, of course, that it is a single-walled package, requiring no liner or overwrap.

### The packing operation

At the Seabrook Farms plant in Bridgeton, lima beans arrive from the nearby fields in lugs, already shelled and rough cleaned by automatic equipment, less than four hours after picking. They are dumped down hoppers through the unloading platform to equipment on the floor below where they are further sorted, cleaned, washed, graded, blanched and finally hand picked on

inspection belts under special lights before being dispatched in pails on an overhead conveyor line to the packaging line on the floor below. So thorough is the cleaning process that 70 lbs. of water are used for every pound of food leaving this plant.

The new packaging line is a compact, U-shaped arrangement approximately 20 ft. long. Its components are, in order: A container feeder and spacer, a filler, a check-weigher and a closer.

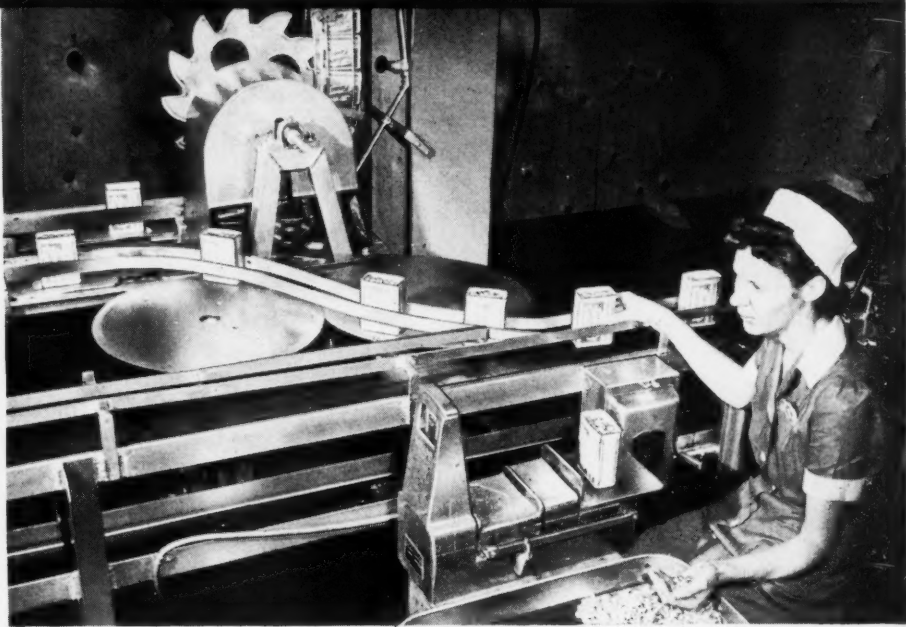
The empty containers are fed down from the floor above, where a girl, using a seven-pronged fork, lifts them one row at a time from the package in which they are received from the factory and places them, open end facing her, on a chute-type conveyor. A few feet



on first line set up to handle the new Canco container...



**3** Fill is volumetric from hopper which automatically releases proper quantity of lima beans.



**4** Containers which appear slack in fill are checkweighed and more beans are added by hand to reach specified weight.



**7** Wheeled racks holding 60 trays, 2,160 packages, take filled packs to freezer.



**8** Flat cans are ideal for Birds-eye multiplate freezer system.



**9** Frozen packages are dumped on counter and swept into shipper.

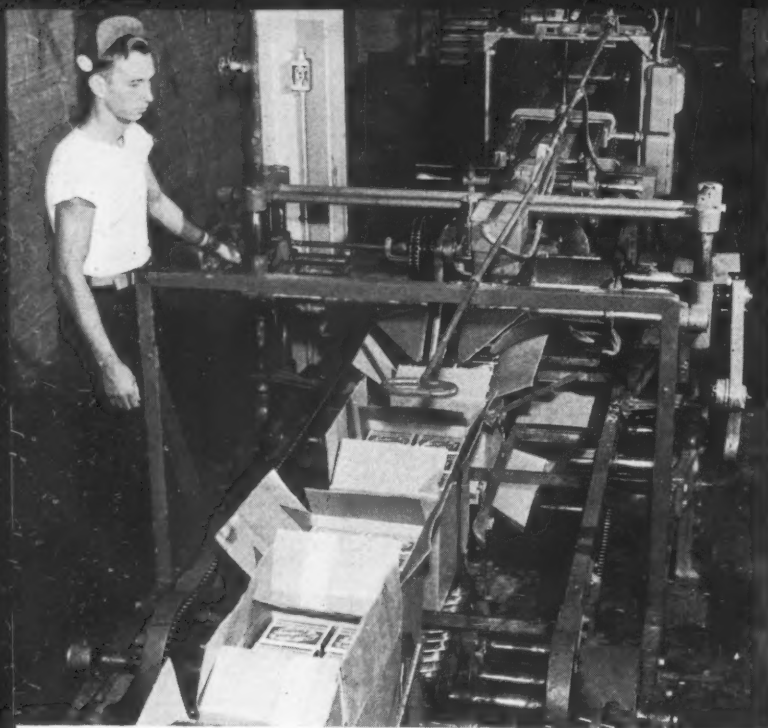
from the loading point, this conveyor is twisted in such a manner that the containers are inverted and any packing lint that may have fallen inside is shaken out.

At the packaging line, the empty containers feed down through the chute into a spacing wheel which sets each container precisely in place upright on a metal plate riding a moving chain belt. At the "U" in the line, the containers pass under filling heads where they are loaded with 12 oz. of lima beans, measured volumetrically. The three filling heads, with funnel outlets shaped to fit the tops of the containers (although they do not actually enter the containers) are fed from a single hopper directly above. This hopper is manually loaded by an attendant who empties pails of beans

taken from the conveyor hooks bringing them from the inspection tables.

Heading back from the fillers, the packages move out on turntables, which provide an opportunity for inspection and check-weighing. This operation, which later will be done automatically, is at present conducted by a girl working alongside the line, who check-weighs about every sixth package, places it on a scale, adds a few beans by hand if necessary to bring it up to the 12-oz. net weight, and replaces the package in the line.

Near the end of the line, the packages move again onto a turntable and then into the special Canco die-seaming machine—similar to the one used at the container-manufacturing plant—which applies the top



*A conveyor takes the shipping cartons from the casing point through the case sealer and straight into the cold storage room through the trap door seen at rear.*

metal end and closes the package. This machine is entirely automatic. The metal ends are fed from a magazine, and as each filled and open container moves into position it is lifted up automatically into the die opening, the end is applied, seamed into place around the lip of the fibre body, and in a fraction of a second the container is permanently sealed in a tamperproof fashion. The capacity of this machine, which is installed on a lease basis, is at least 120 packages a minute, and may in some cases run as high as 200 a minute.

As the packages move out of the machine they are lined up by an attendant, broad side down, one deep

on the metal tray which will convey them through the freezer. Each tray will hold 36 packages, and the trays themselves are racked on a wheeled truck having a capacity of 60 trays. As soon as a truck is filled it is wheeled immediately to the freezers, which are of the fast-freezing Birdseye multiplate type.

Seabrook Farms has a huge battery of modern, freezers, a group of which are of the fast-freezing Birdseye multiplate type. The trays of packages are slid from the truck directly into corresponding racks inside the freezer, the doors are closed, the freezing plates close from above and below, and in less than an hour the doors are opened at the discharge end of the freezer and the solidly frozen packages emerge.

Leaving the freezer, the trays are picked up by an attendant and dumped on a counter, from whence attendants on the opposite side sweep them immediately into corrugated shipping cartons holding 4 dozen packages each. The cartons are placed on a conveyor belt which takes them through a case sealer and thence immediately through a small trap door into the 10-below zero storage room, ready for shipment in Seabrook Farms' own refrigerated truck-trailers or in specially iced rail refrigerator cars from the plant's own railroad siding.

#### **Advantages of the package**

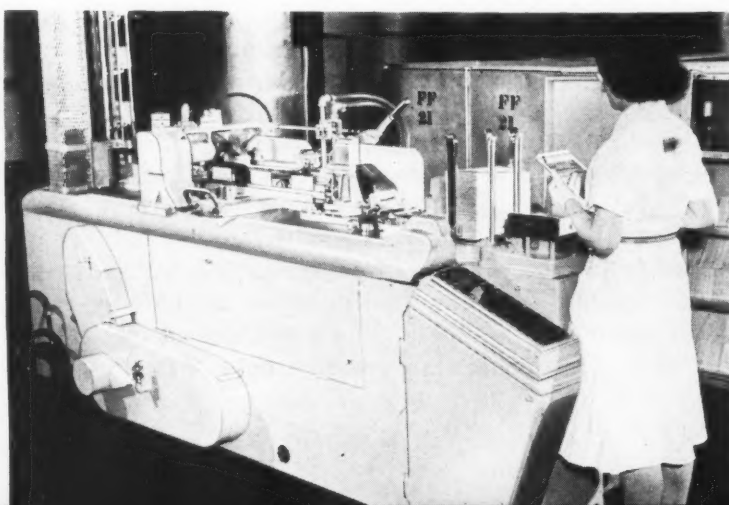
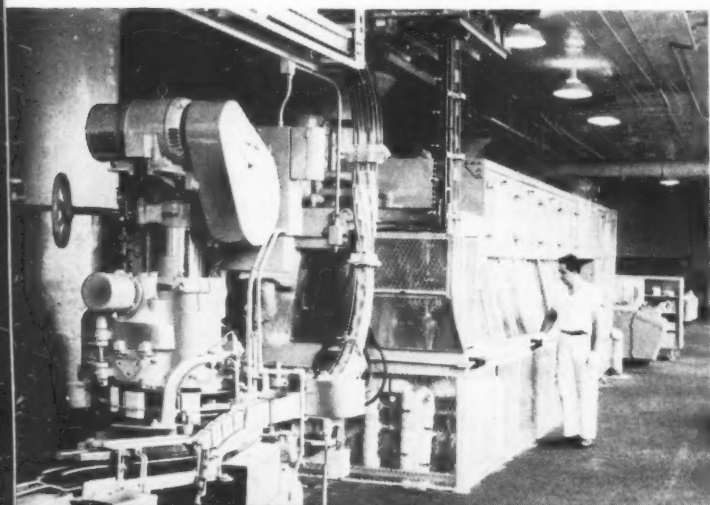
According to C. Courtney Seabrook, his company was most attracted to the new package by the possibility of reducing the cost of package handling. As compared with the conventional frozen food carton, it eliminates the extra equipment, time and help required to set up cartons, insert and seal liners, and apply and seal overwraps. The new line requires only five girl attendants, as against 22 for each of the old lines, which are still operating alongside it. The package itself costs about the same as the old-style carton, liner and

## **...and the step-by-step story of container manufacture**

*Production line at American Can Co.'s Jersey City plant shows body-forming machine, rear; die-seamer for body ends, foreground; paraffiner, between.*

(Page 100)

*Close-up of machine which takes flat printed paperboard and forms it into the container body, sealing the lap seam with a special adhesive. Note the white gloves on the attendant.*





wrap, so that all cuts in labor costs are a clear saving.

Handling qualities of the frozen package and the physical and chemical protection it gives to the contents remain to be determined in full-scale commercial operation, but preliminary indications are favorable.

On the basis of comparison tests still in progress, Robert E. Bauer, packaging engineer for Seabrook, supports the claim of Canco engineers that the fibre-metal can is equal to the conventional overwrapped paper carton in water-vapor protection.

The American Can Co. states: "Tests have shown our finished container shows very little WVT loss in 24 hrs., and on a weekly rate averages less than 0.05 grams at 0 deg. F. and 0% relative humidity."

Mr. Bauer's own WVT test consists of two phases: (1) a desiccator test at room temperature (75 deg. F.) and 0% relative humidity, and (2) a freezer test at minus 8 deg. F. For Phase 1, a regular container off was filled with a moist cellulose sponge cut to size and the top crimped on by the machine. The specimen was carefully weighed and then placed in a desiccator containing calcium chloride, the weight being checked periodically. For Phase 2, three containers of lima beans were taken from the regular production and carefully weighed before being placed in a conventional storage cabinet (without control of humidity).

After 20 days, the sponge-filled container in the desiccator at room temperature showed a loss of 4.13% of the original weight. In Phase 2, the bean-filled cans held at minus 8 deg. F. showed no appreciable change in weight (an actual slight increase in weight being accounted for by the formation of frost on the outer surfaces of the containers). Although 20 days is of course too short a period for final determinations in a test of this nature, Mr. Bauer concludes that the Canco container compares favorably, in both desiccator and freezer phases of the test, with the carton-plus-heavy-overwrap package used by Seabrook Farms.

#### Market reaction

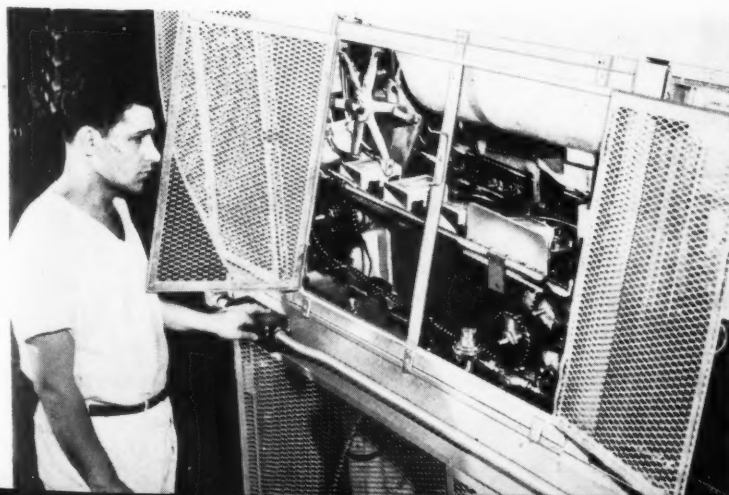
Seabrook reports that both distributors and retailers like the strength of the container in handling in storage cases, as compared with the overwrapped carton, which sometimes loses protection and identity through tearing, unsealing or complete loss of the wrapper-label. They find that, due to their waxy surfaces, the packages are not apt to stick together or to freezing coils. Retailers report that housewives feel the container is "more sanitary," and that they like its ease of opening (prying off one end with an ordinary hook-type opener) and emptying the contents without having to tear off obstinate paper wraps.

Prior to adopting the container, Seabrook Farms executives saw the results of a preproduction consumer survey made last winter in an up-state New York city. This survey indicated that housewives preferred the new package over the conventional carton by more than 2 to 1, although two-thirds of them rated the keeping qualities of the two packages—as to color, flavor, texture and shape of the food—as "same." About one in six considered the keeping qualities of the new package better, and only a handful said "not as good." Apparently ease of storage was a strong factor in preference for the new container, as two out of three cited this point. Of the 300 consumers interviewed, 127 thought the new package was easier to open, but 96 said it was more difficult to open and 76 saw no difference. A majority thought it easier to remove the contents from the Canco container, but there was no pronounced preference on the point of "ease of disposal."

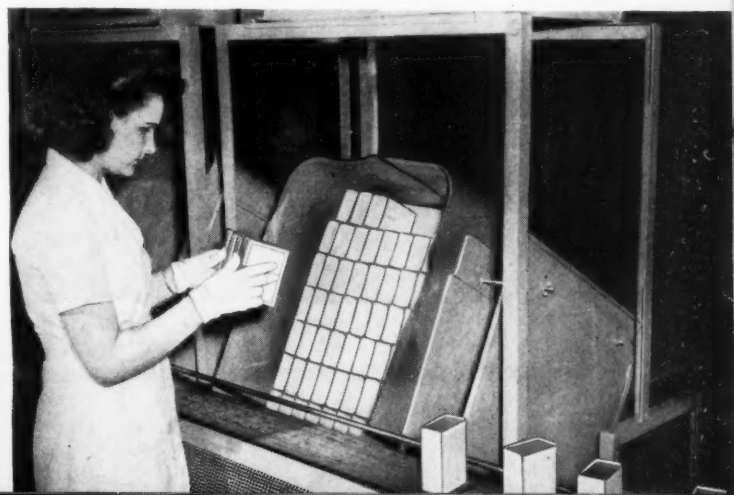
Those responsible for this survey point out that its findings must not be considered at all conclusive. The sample was small, and there was undoubtedly some curiosity buying of the new package, which always influences spot answers to questions. The findings were helpful in that they revealed no opposition to the new container on any point. Its exact competitive position

## on special equipment installed in American Can Co. plants

*Gates at the end of the glass-enclosed paraffining machine are open to show bodies passing through the cooling section after having been coated both inside and out with paraffin.*



*From die-seamer, cans move along to be bundled for shipment. Metal tops, to be applied on leased equipment in packer's plant, are shipped separately.*



(Page 101)



can be determined only by long-term production and sale.

#### Disadvantages

The only disadvantage of the new package, as Seabrook's production men see it, is that, being received as a set-up container, it requires considerable storage space. They have suggested that instead of being set up, with one end, at the manufacturer's plant, all components might be shipped flat and assembled by the packer as required, using the machinery supplied by the maker. This would mean, however, that the container body would have to be paraffin-coated in the flat, and there is the possibility of the loss of some WVT protection if the body were formed after coating instead

of before. American Can Co. engineers say that it would not be feasible.

Canco's printing of the container body is at present limited to two colors, but if a full-color pictorial label were desired it could be obtained by printing label paper separately and applying a full wrap-around label. This will be done by at least one West Coast fruit packer, using a similar metal end fibre package produced in the West.

It is expected that in 1947 approximately 45 frozen food packers will be using the new container.

CREDITS: Container, American Can Co., New York; filler, Ayars Machine Co., North Salem, N. J.; scales, Toledo Scale Co., Toledo, Ohio; end-closing machine, American Can Co.; case sealer, Standard-Knapp Corp., Portland, Conn.

## Packaging puts it over . . . a dud in bulk sells in sets

When the Bo-Jo Products Co., Los Angeles, first introduced their colorful plastic bells and stars, designed as Christmas tree ornaments, the items were shipped in bulk and sold in bulk on the counters of novelty stores. Sales were so slow that after three months production was abandoned.

*Polystyrene bells and stars, sold in bulk, were a merchandising failure. In this platformed folding carton 12,000,000 sold in three months.*



Then the Bo-Jo company conceived the idea of arranging the ornaments as a set in a die-cut platform in a folding box which would serve as a display package. Within three months after the introduction of this package, more than 12,000,000 ornaments were sold, and further orders had to be refused because production capacity would not permit delivery this year.

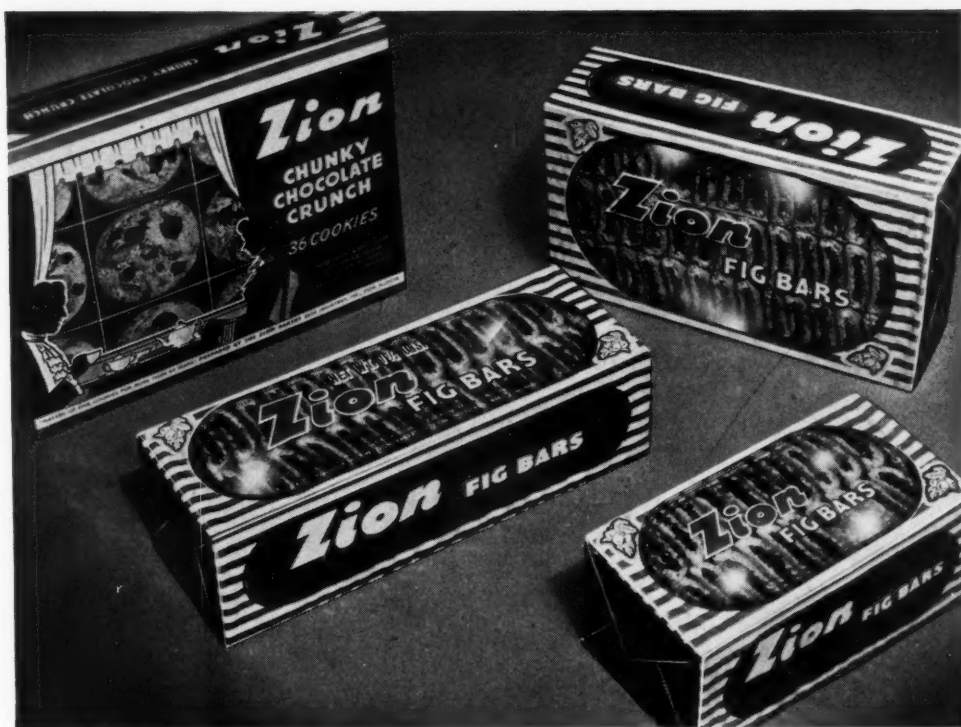
The folding box is simple and attractive, yet inexpensive. It is printed in three colors—the traditional Christmas red and green, with gray—and has a varnished finish for gloss. The box is fitted with a tray, die-cut to hold each of the twelve pieces in the set. The tray has a red background and is printed with the design of a Christmas tree, to give the effect of bells hanging on the tree. The cover of the box is printed with a star and bell design, is die-cut, and can be folded over to form a backpiece when used for counter display of the set.

Twelve ornaments comprise each set: four large bells, six smaller ones and two stars. Molded of polystyrene, they are said to be non-breakable and non-flammable. The ornaments are produced in holly green, Christmas red, Bethlehem blue and autumn amber. Individual box size is 7½ by 11 by 2¼ in., and four dozen boxes are packed in paperboard cartons for wholesale delivery.

Packaging alone is credited by the company for the success of this product which otherwise had proved a merchandising failure.

CREDIT: Display box designed and made by Standard Paper Box Co., Los Angeles, Calif.

*Redesigned boxes and trays, with colorfully printed overwraps of cellophane, have boosted sales of Zion cookie products in all retail outlets.*



## Cookies nationwide . . . in folding paper boxes

**Q**uality merchandise plus boxes with strong point-of-sale appeal are a combination that pays off in the packaged cookie business.

This is well evidenced by the success of the Zion Bakers, the bakery goods department of Zion Industries, Inc., Zion, Ill. Without any particular promotion, the Zion enterprise has grown from a modest establishment of 12 employees in a small frame building to one of the largest cookie and candy houses in the Middle West. Today its products are known from coast to coast and 300 employees are kept busy.

The company at present is concentrating its efforts on three types of cookies: fig bars, put up in 1-, 1½- and 2-lb. packages; chocolate chip cookies, in 12-oz. and 1-lb. containers, and marshmallow cookies, available in 9-oz. units only. All the Zion cookie products are packaged in new and improved folding paper boxes. The company has found these adequate to protect the contents against breakage through the long chain of distribution from factory to ultimate consumer. Economy and general utility of storage and use also were factors favoring folding paper boxes.

Restyling has stressed a "family theme" of trademark identification and color combinations. An all-cellophane wrap is used instead of the former combination wax paper and cellophane outer wrapping.

The fig bar packages are of the tray type. The facing sides bear the trade name in white on a blue bar against

a gold-and-white-striped background. The top overwrap is printed to simulate a window effect with the word "Zion" in red above tempting rows of fig bars.

Chocolate chips in the 1-lb. size are packaged in an overwrapped tray with the rows of cookies displayed through the transparent wrapping. The color design, printed directly on the box, is a horizontal stripe of yellow on a blue background with the Zion trade name in red script. The 12-oz. package is a two-piece paper folding box featuring a full-color illustration of the cookies on the cover. The same color combinations and trademark identification are used.

Marshmallow cookies are packaged in overwrapped tray-type folding paper boxes which now are blue with "Zion" in red script on a white background.

A pleasant furor of increased sales and faster turnover has been stirred up by these smartly styled packages. Trade outlets report the redesigned containers can be displayed more attractively, resulting in a noticeable increase of impulse buying. The "family theme" of the color combinations and trademark has made possible easier identification by customers.

**CREDITS:** Over-all design program and printing of cellophane wrap for fig bar package, Milprint, Inc., Milwaukee. Fig bar carton, Chicago Carton Co., Chicago. Production of 12-oz. chocolate crunch box and design and printing of 1-lb. chocolate chip box, Sutherland Paper Co., Kalamazoo, Mich. Marshmallow carton, Marathon Corp., Menasha, Wisc.

# The product makes the trademark

*... and Hassall's line of special nails, rivets and screws is packaged and promoted under one unforgettable symbol*

**B**efore a program of packaging is undertaken by any concern, some executive in that firm must have some pretty positive convictions on the subject. He may arrive at his conclusions by one or several paths; but have them he must and someone must be commissioned to act on them.

In the case of John Hassall, Inc., makers of special nails, rivets and screws, the president of the company himself was responsible for the new packaging program. For a number of years, they had marketed their prod-

ucts in handy-size packages through the regular hardware distribution channels of wholesalers and retailers. They freely admit that their former packages were no more adequate for modern merchandising than many to be found in the hardware field. Specialties like theirs are slow turnover items in hardware stores, frequently sold in bulk and mostly in small quantities. The Hassall organization, some years ago, conceived the idea of packaging assortments of these specialty nails, screws or rivets, and in the early stages made use of

1—"H" trademark of John Hassall, Inc., is dominant on wooden bulk container as well as on the smaller unit containers. Alternating bands of red and black on the latter assure identity from any angle.





# SPECIAL NAILS-RIVETS-SCREWS Hassall SPECIAL NAILS-RIVETS-SCREWS

2

2—The acid test of a trademark is its recognition value when standing alone, reproduced in plain black and white.

3—The Hassall "H" is equally effective on sample packets, shipping tags, and parcel post gummed stickers.

thin-gauged chipboard folding boxes, which unfortunately often did not hold together during the store life of these slow-moving products of considerable weight. The boxes would crush under the load and losses would result.

The next stage was a metal container. From the point of view of protection, this was quite adequate, but it left something to be desired from other important standpoints. In the matter of convenience, the cover was a bit difficult to remove, and when removed, was difficult to replace. These metal containers were attractively enameled, but shortages of tinsplate, restrictions of use of enamel for decorative purposes, and rising package costs while product price remained fixed, combined to make good reasons for thinking about another form of package for these products.

To some extent, products of this nature depend upon impulse buying. If a week-end carpenter or tinkerer sees an article in a hardware store, he sometimes is impelled to purchase something he hadn't intended to buy. But there is nothing very exciting about the mere appearance of threaded nails or brass rivets. Could packages be used to convey ideas about suggested uses? The Hassall people arrived at conclusions which have long been axiomatic in other fields but which apparently are still unplowed ground in many branches of the hardware industry. They decided that theirs was a problem for a package designer who could bring to bear an experience that would solve problems of convenience, protection and merchandising.

The first recommendation made by the designer was for the adoption of a trademark or a trade device that would take these unglamorous products out of the commonplace and give them individuality. The idea was

3



4



4—Sturdy display containers and unit packages for syndicated stores are designed in strong colors, adapted to long store life. 5—Pre-war enameled metal container (left), had some advantages but gave way to the new paperboard carton (right) with metal-reinforced corners.

5



quickly seized upon, and indeed extended for application to wooden kegs, bulk containers and even office stationery, checks, etc.

As it often happens, the trademark which the designer developed was so simple and obvious that it was strange nobody had ever thought of it before. It consists merely of the initial "H" formed by two special screws. This initial appears in reverse over the name Hassall with the legend "Special Nails-Rivets-Screws" appearing on top and sides. Once adopted, such a trademark becomes the basis for package design.

But for products like these, the packaging problem goes much deeper than surface decoration. Tests had to be conducted for the selection of package material of adequate strength, durability and printing surface, and package form had to be adapted to the hand-packing and semi-automatic methods used in the plant. The treatment also had to be adapted in color as well as structure to withstand the merchandising hazards in the retail store, as well as to serve the convenience of the ultimate consumer who purchases a small package that lasts him a long time.

The metal edge box was decided upon because of its strength and durability and its simplicity of handling, assembling and shipping. The stock of the unit container is a kraft-lined board of exceeding toughness, with an exterior surface of good printing quality. The Hassall line uses 20 different sizes of boxes, but the de-

sign evolved requires only two different sizes of plates for these 20 sizes. The over-all design pattern was applied in such a manner that the trademark and manufacturer's name are instantly identifiable in any position. This dominant note is equally strong whether applied to a wooden shipping container or the smaller unit package.

#### Syndicated store package

Another type of package was developed for use in the syndicated store field but it is equally effective in the neighborhood hardware store. This is used for two different 10¢ assortments. In one case this is a "handy kit" of assorted threaded nails, while the other is an assortment of brass and copper nails. A display container contains two dozen of these 10¢ units. The colors and design in both cases are selected with full knowledge that products and packages of this character can get to be pretty sorry-looking during their store life. Display container and unit carton are both of the metal edge construction and made of tough, durable stock. Here again, the trademark is used but it is subordinated to a series of poster-style sketches intended to convey ideas about suggested uses, thereby taking full advantage of impulse buying.

CREDITS: Trademark and package designs, Charles C. S. Dean, industrial designer, New York, N. Y. Metal edge boxes, National Metal Edge Box Co., Philadelphia, Pa.

## Eye-catcher for candy counters bids for impulse sales



A colorful Christmas candle package, containing 48 mint-flavored sweet chocolate wafers, offered by Walter Baker & Co., a division of General Foods, inaugurates a postwar program for an expanded confectionery line. The package, which holds 12 oz., is further evidence of the trend toward packaging candy for impulse sales appeal (MODERN PACKAGING, Sept. 1946, p. 104).

The red, silver and blue gift container is a chip-board spiral-wound tube wrapped with a paper-backed printed foil with a 3-in. extension at the top which is twisted to give the effect of the candle's wick. The wafers are glassine wrapped.

The tube, including the wick, stands about 13 in. high, is 2½ in. in diameter and is supported by a silver and blue base. The famous Baker girl trademark is worked into the wrapper design. Transparent colors are used on the foil.

Walter Baker is planning to use foil extensively because of its protective and display values.

CREDITS: Design, Leo Macdonald, Boston, Mass. Foil wrapper, Reynolds Metals Co., Richmond, Va. Tube and base, Middlesex Paper Tube Co., Lowell, Mass.



Typical packages for Century High Speed Drill line indicate the variety of package types used, the attractive merchandising appeal of sets and the close attention to factual labeling. All cards and boxes are over-wrapped in heat-sealed cellophane.



## Drills . . . packaged to speak for themselves

Workshop hobbyists as well as skilled tradesmen are justifiably particular about their drills. There are few experiences so exasperating as being unable to locate the right sized drill when it is needed—unless it is that of waiting while a hardware or department store clerk paws through bins of loose drills.

Century Twist Drill Works, New York, has effectively solved such problems for both the buyer and seller with a closely integrated postwar packaging program which enables the buyer to know exactly what he is getting and insures that the drills reach him undamaged. Anchored to die-cut cards or packed in sturdy, paper-covered set-up boxes, the drills enjoy the further protection of a heat-sealed cellophane wrapper.

"Some of your customers may not know the difference between carbon steel and high speed steel," Century points out to its dealers, "but no one will confuse these individually packed, cellophane wrapped Century drills with ordinary no-name drills stacked in a bin."

The company's complete line of High Speed drills is readily identified by the bold yellow, red and black printing employed on all styles of package. Handling of descriptive information on the packages might well serve as a model for other firms in the hardware field. Each package shows clearly the size and quality of drill or drills contained and specified typical uses.

The carded drills, of course, may be plainly seen by the buyer prior to purchase, while the boxed sets carry a large photographic illustration on the lid showing the complete assortment of drills within.

Some of the sets include metal or plastic stands, while the more expensive assortments, containing as many as 29 drills ranging in size from  $\frac{1}{16}$  to  $\frac{1}{2}$  in., include a Huot-type metal drill index. This index

opens like a book, standing on the bench with each drill accessible and identified as to size. Drills are not in the index at the time of purchase, but are packed in small sealed envelopes which provide additional protection.

All drills are treated with a light oil before packaging to safeguard them against rust. Those in the carded sets are manually positioned on the flat or folded cards and stapled on adjustable stapling machines, after which they are outer wrapped in cellophane.

CREDITS: Design, Wesley E. Sharer & Associates, Chicago. Drill holder cards and set-up boxes, Acme Paper Box Co. and Capitol Paper Box Co., Chicago. Stapling machines, Acme Steel Co., Chicago, and The Heller Co., Cleveland, Ohio. Wrapping machine, Miller Wrapping & Sealing Machine Co., Chicago. Printing, Charles E. Tench Printing Co., Chicago.

M-1 drill set contains 29 sizes; includes metal Huot index in which drills are kept for protection and immediate selection. Drills come packaged in inner envelopes on which complete range of sizes is listed. All drills are oil treated prior to packaging as protective measure.







## *Dressed up Parkers*

New packages for Parker pens and pencils include re-designs of both gift sets and regular boxes for the Parker "51" as well as the less expensive line.

At the top of the photo is the old "51" gift set. In the center is the new, shown open and closed. Slightly longer and narrower, the new retains the same general appearance of the old but affords improved display value. The same die is used for making the top and bottom, which are identical in shape. Satin is used for lining the "puff," and the bottom pad is velvet. Lining color has been changed from a drab yellow to an ice blue-gray, to convey a "jewel feeling."

The new gift box carries the "51" identification on the outer cover. Inside identification is achieved by a metal nameplate on the base of the box, etched on either end with "51" with Parker in the center.

The paperboard boxes for the whole line are similar in design to the gift box. They use the nameplate idea and the new lettering for the Parker name.

**CREDITS:** Gift box design, Robert Gruen Associates, New York. Gift boxes, F. H. Noble Co., Chicago. Fabricoid, E. I. du Pont de Nemours & Co., Wilmington, Del. Paperboard boxes, Dennison Mfg. Co., Framingham, Mass. Paperboard box design, Robert Gruen Associates and Dennison Mfg. Co.

# DESIGN



## *Sales appeal plus economy*

The newly designed cartons for Evans Eye Lotion (foreground), a product of S. F. Durst & Co., Inc., Philadelphia, combine a considerable saving in paperboard with a decided improvement in shelf-appearance.

The new package, in a warm gray, white and maroon, presents a much cleaner and more legible informative panel than did the old one in steel-gray with white panel and rather restless, uncoordinated lettering.

It is in the interior packing, however, that the greatest packaging improvement shows up. Formerly the bottles of lotion were packed into the outer container with a footed eye-cup in its own carton included in the package. This made for an unnaturally tall carton. Now a footless eye-cup without packaging is simply inverted over the cap of the bottle, foreshortening the carton considerably.

The company claims that this is the first major packaging change for this product in 35 years and a concentrated program is planned for the detailing and sampling of the medical profession.

**CREDITS:** Bottle, Maryland Glass Corp., Baltimore, Md. Label, National Label Co., Philadelphia, Pa. Carton and design, Brown & Bailey Co., Philadelphia, Pa.

## Tavern package for pourers

The façade of a Manhattan tavern not only prompted the design for this intricately die-cut and scored display carton for whiskey pourers, but ultimately the design of the package itself suggested the name for the product—"Tavern Toppers."

The Sterling Plastics Co., Union, N. J., manufacturers of the polystyrene Toppers, made them originally for distillers—inscribed with company name—and they were given as premiums to the tavern keeper. Then the company got the idea of merchandising them as sets to identify whiskeys rather than distillers and went to its agency, Walter Gallagher, for a suitable display container. Mr. Gallagher felt that the engineering talent which went into producing the product should be more than matched by the talent shown in the box design. Then came the inspiration to develop a display package which when opened resembles a typical New York tavern.

The gay red, yellow, green and blue of the stoppers is reproduced in the package to lend a gala air to the unit.

In the beginning Sterling planned to name these stoppers Whiskey Pourers but, after the package was designed, the agency, quick to see the obvious tie-up



between product and package, suggested a natural in Tavern Toppers.

Advance advertising, with a picture of the package, went out to the trade, and before the sets were in actual production, orders began pouring in, and they are now counted in hundreds of thousands.

Instructions for setting up the display are on the bottom of the box and instructions for the use of the pourers are on the back panel. A separate paperboard price tag is included in each package for the convenience of the retailer.

CREDIT: Carton, Keystone Folding Box Co., Newark, N. J.

# HISTORIES

## Adaptable label design

Two label changes were necessary in a fairly short time to evolve this newest of Swanson's Ever Fresh Brand design for chicken fricassee. The evolution of the design was particularly important because it will be adapted to the entire C. A. Swanson & Sons line which will eventually use practically every packaging material including tin, glass, fibreboard, cartons, barrels, drums, wooden boxes, parchment, waxed paper, cellophane, *et al.*, for poultry products, butter, eggs and poultry.

The first label (top), a pale yellow and blue, had little shelf appeal. The second (center), with a neutral tan all-over pattern of the fricassee, also lacked stand-out qualities on the shelf and, at the same time, was more difficult to adapt to other products. The third, and the one now adopted permanently, uses larger lettering, combines cross-hatched blue with red, yellow, dark blue and white in an effective design.

To prove the pulling power of the new design, Swanson's called in all merchandise with the older labels from some 1800 stores, replacing it with the new. Sales, even during a slow period, in some cases actually tripled while the average showed a 60% increase.

CREDIT: Label printing, Epsen Lithograph Co., Omaha, Neb.







OLD

NEW



## Appetizing desserts

In order to (1) improve shelf visibility, (2) provide quicker identification, (3) assure greater appetite appeal, and (4) use more pleasing colors, Daniels Tested Products, Inc., Kansas City, Mo., planned a complete redesign of its Percy's dessert packages.

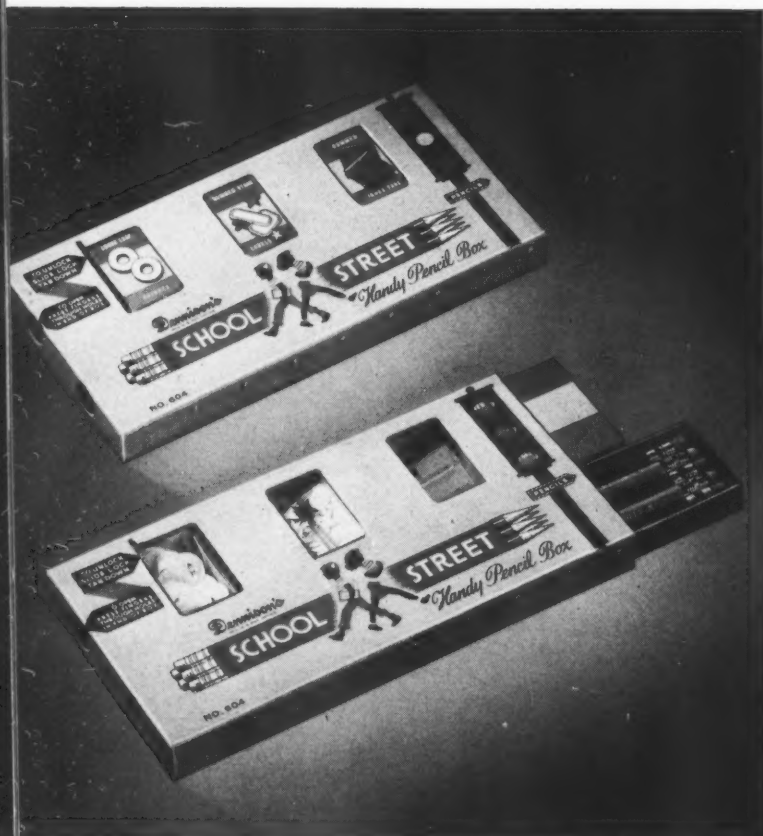
The first two objectives were accomplished by a clean-cut, simplified layout on both individual cartons and display container. Flavors are shown clearly on the top panel of each individual carton and the different flavors in the line indicated on the front. Puddings are easily distinguished from pie fillings by lettering, color and illustration.

Through the use of the Quanta Color System, the second two objectives were achieved. Appropriate colors from the first Quanta were selected to provide brightness and contrast and to stimulate appetites with appealing freshness. The pudding packages are a buff and deep blue combination, while the pie fillings are in buff and a rich maroon.

The new designs are infinitely more pleasing to the eye, and the display increases self-service selling.

CREDITS: Design and cartons, Gaylord Container Corp., St. Louis Mo.

# DESIGN



## Compact school kit

School Street, a handy pencil box, is the latest addition to the versatile line of Dennison's school supplies. Attractively printed in five colors, it provides room for gummed reinforcements, stars in assorted colors, gummed labels and pencils, all in a four-compartmented sleeve box.

The two tray sections which slide out, one for the pencils, the other divided in three parts for the other accessories, are opened by means of pressing the fingers through two small holes in the left side of cover.

Die-cut openings in the upper portion of the cover give the names of the items in the tray. A lock arrangement to the left of this tray not only keeps these small, easily lost items from dropping out but provides a stop so that the tray will not come out of the box entirely. This divided tray can be pushed out only far enough to position the openings over the compartments below.

One side of the box is imprinted with three panels where the owner may write his name, grade and school—the other is a handy eight-inch ruler.

CREDIT: Box, Dennison Mfg. Co., Framingham, Mass.



## New single-dose packs

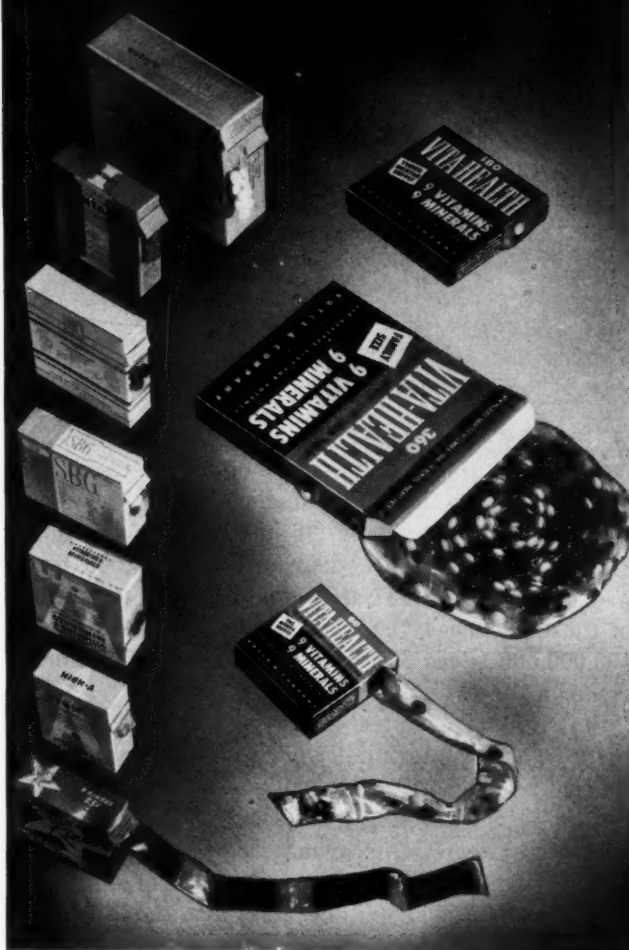
Several Pacific Coast pharmaceutical houses have adopted a new unit packaging service that combines a self-dispensing carton and a mechanical method of packing tablets, capsules and free-flowing powders in compartmented tapes of flexible film.

This packaging, done on a custom plan, is an outgrowth of company-sponsored vitamin programs in some 255 war plants where convenience of the single-dose pack was said to be a deciding factor in sustaining sales. The service has equipment to package 100 million tablets a month.

The principle of the package is a machine that seals in a continuous tape of transparent or other flexible material, tablets or capsules individually compartmented in ones, twos, threes, up to twelve to the packet, perforates each packet, measures the prescribed length of tape and rolls it out onto a table in desired length rolls, where it is inserted into specially slotted and perforated tuck-end cartons.

The rolls are placed in the carton to dispense through the perforated slot in the side.

CREDIT: Custom packing service, The William Steven Co., Los Angeles, Calif.



# HISTORIES

## Dream pipes

One of the first really styled packages for high-priced pipes has been adopted by Eugene J. Rich, Inc., distributors for Custombilt pipes. To get away from an ordinary tan set-up box with a brown top the company had its designer evolve a box paper which duplicates exactly the grain in bruyere. The artist made a gesso model of bruyere grain, colored it and had it photographed as there was no bruyere-grained paper made.

The boxes for the single pipes are entirely covered with the bruyere-grained paper, while the Convertibole—a pipe stem with two or more bowls—is in a two-toned box with scored platform.

Because the company feels that each pipe smoker likes to choose his individual style from 30 or 40 models, they offer a composition miniature, in its own small box, to be sold with a gift certificate allowing the man to pick his own pipe. Each miniature carries a small embossed foil label with the name, "Custombilt," and slogan "as individual as a thumbprint." The retailer may order these miniatures at a nominal cost.

CREDITS: Box design, Howard Arnold, Fanwood, N. J. Foil label, Cameo Die & Label Co., New York. Boxes, Hess & Densen, Inc., New York. Box paper, Bryant Press, Inc. New York.



# Package space

... your best ad medium—and its for free

by Jim Nash\*

On the two sides and back of a pound package of tea, there are approximately 50 sq. in. of space. This is equal to more than a full single column of newspaper space, or 350 agate lines. If all the tea packers in the United States were to distribute 100,000,000 pound packages of tea in 1947, they would have on the surfaces of those packages, the back and two sides—for free—100,000,000 times 350 lines or 35,000,000,000 lines of space for the advertising of tea.

Stated in terms of the dollar value of this amount of space in all American daily newspapers, it amounts to this. The line rate for total daily newspaper circulation—morning and evening—is \$140. The circulation of all of these papers is approximately 50,000,000.

If you divide the total circulation of all of daily newspapers (50,000,000 copies per day) into the fixed circulation of all of the 100,000,000 pound packages of tea you have exactly two ads of 350 lines each. Multiply 350 lines by two and you have 700 lines of newspaper space to use. If you now multiply the amount of this space by the basic line rate of all papers, you arrive at this equation: 700 lines times \$140 equals \$98,000. But this isn't the entire story. Let's suppose that the average ad run over the name of a tea packer is read by 5% of all the readers of the papers in which the ad appears. The tea packages sold to the consumers get nearly 100% readership. The advertising copy appears on the sides of the package and on the back. Cut this 100% readership in half and you still have 10 times as many readers of the ads on the packages as you have readers of ads in newspapers. If the packages have 10 times as high a readership as the average ad, your advertising space on the tea packages is equal to 10 times \$98,000 or \$980,000. This is almost a million dollars worth of advertising.

If a packer were to sell 2,000,000 lbs. of tea next year, he would have available 2,000,000 times 350 or 700,000,000 lines of advertising space. If he were to sell 5,000,000 lbs., he would have 1,750,000,000 lines of available advertising space. If he were to sell 10,000,000 lbs., he would have 3,500,000,000 lines of space.

When viewed in such concrete terms, package design becomes a tremendously vital tool to the sales force, a means of increasing the value of the advertising budget and a method of reducing distribution costs and increasing net profits.

Furthermore, the advertising a manufacturer puts on his package is permanent in terms of the retailer, and it is permanent in terms of the housewife who han-

dles the package day in and day out. It lives longer than any magazine, newspaper, radio, billboard or street car advertisement.

Based on my experience, I believe that all merchandise is sold because of one or all of three simple reasons. First, the manufacturer runs advertising that actually sells the consumer. Second, a consumer has good luck with a product and, sooner or later, he tells a friend about it; the friend tries it; likes it. Third, a certain percentage of people change from one product to another every day. In the world of tea drinkers, for example, the average family changes its brand every three years. Coffee drinkers change every eight months. The average man wears the same brand of shirt for eight years before he switches to another brand.

The customer who is in the mood to change, wanders around a food market. Suppose she is one of those people who is going to change her brand of tea. She "spots" a new package. It is a new brand to her. She is attracted to the package, likes its color and its wrapping. She picks it up. If she likes the blend, the company selling that brand has a new customer. According to Carl V. Haecker, assistant director of sales promotion of W. T. Grant Co., 87% buy through attraction of sight.

These simple selling "gadgets" are working around the clock. Naturally my greatest interest is in the third reason. We have sufficient evidence to prove that a well-designed package can also strengthen the advertising space used to illustrate the product and can add force to the advertising by the quick tie-up in the mind of the consumer when she is in the mood to buy at the point of purchase.

The problem then is to design a package that will be outstanding among its competitors in the store. Beyond the axioms of package planning that have been developed over a period of years, all of this is tied up in some way with very elemental design that will give the best optical effect against competing packages on the shelves.

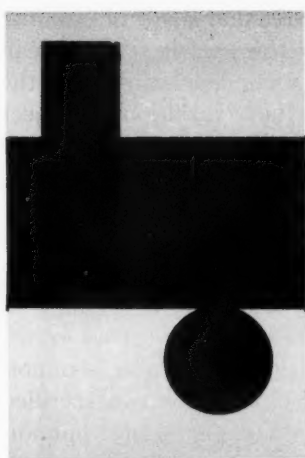
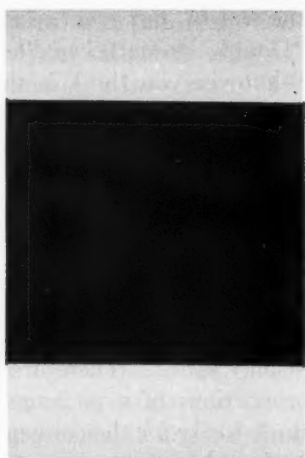
The examples of optical illusions created by design shown on these pages, for instance, are all the same external size and shape. Decide in each case if the designs have changed the proportions or optical sizes (Figs. 1 to 6). These forms may be tried out on cylinders. A cylinder makes a true circle (in the flat) appear to be an oval when applied to a cylinder. We usually use one-third of the circumference for the display face. Cylinders play tricks on designs and create very interesting problems in package designing. These

\* Package designer, New York.



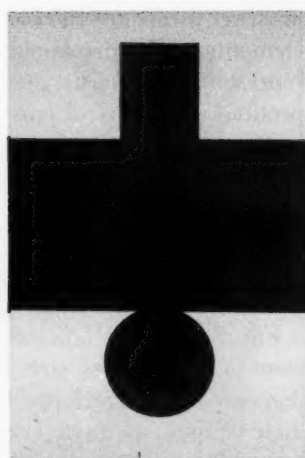
1

*Does design with movement attract greater attention?*



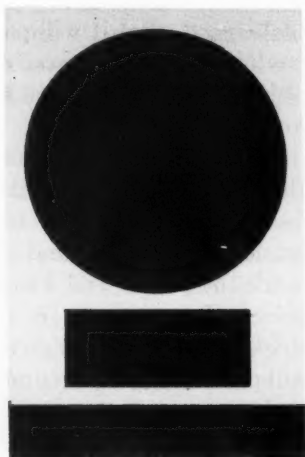
2

*Does off-center balance cause movement; increase size?*



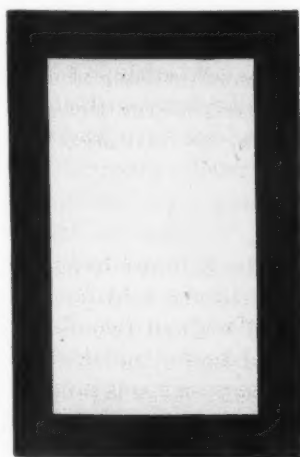
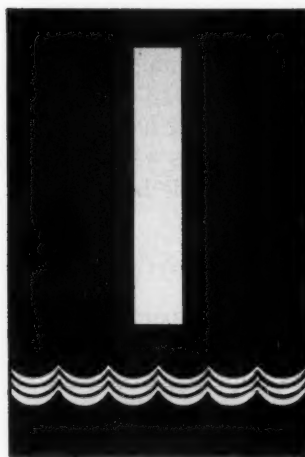
3

*Do common shapes overlapped or cut off sacrifice shape or does the eye complete the form, increase optical size?*



4

*Do diagonals always increase optical size? Are large movements versus small movements always so infallible?*



5

*Parallel lines require perfect register in reproduction. Can irregular borders, off-register, be less conspicuous?*



6

*Something happens optically by use of different borders. Which of these two borders appears taller to you?*



### OPTICAL ILLUSIONS CREATED BY DESIGN

All of these figures have the same external size and shape. Decide if the designs change the proportions or optical sizes in any way. Then compare these figures with the design elements used by your competition.



abstract forms are the basic area and shape of essential elements to be displayed on the package. They can represent trademarks, product name, illustrations of the product or blocks of copy. Each variation is subject to trial and error and unlimited possibilities. You can try other forms and shapes and decide which one has the greatest optical size. Then, try it against competition and see how it compares in size and in contrast.

Fig. 1 is intended to show how design with movement attracts more attention on the shelf.

Fig. 2 indicates how off-center balance causes movement and increases size. Fig. 3 shows how common shapes can be overlapped or cut off and not sacrifice their shape. In fact, the eye completes the common form and increases the optical size.

Fig. 4 illustrates how diagonals always increase size but large movements versus small movements are not so infallible.

Fig. 5 points out that parallel lines require perfect register in reproduction. Irregular borders can be off-register without being so conspicuous.

In Fig. 6, it is evident that something happens optically to the original form. One appears wider and the other taller. The effect for other simple border forms is a very interesting study.

#### Food packaging "musts"

Laws outline certain "musts" on packaged food products. Even though many manufacturers rebelled against these "musts" at the beginning, they coincide very closely with our thoughts on what should go on the display panel of a package. Briefly, these "musts" are: What is in the package? What quantity? What kind of ingredients? Who made it?

The only mandatory sizes of these elements are the contents, ingredients and the name and address of the manufacturers, and even among these there are many ways to satisfy the law. If you are ashamed of any of them, you may reduce them in size. If you are proud of some of them, you may elaborate.

Many packages are quite small. Therefore, it is very important that you weigh carefully the value of each element you feel must be on the display face of your package.

Common names of product, such as tea, coffee, peas, beans, beer, etc., need not be as large to be grasped quickly as a trade name or an uncommon name, such as "Cup-ets," or "Biskettes," etc.

If you hope to retain your identity as a manufacturer and create brand consciousness you must display prominently the brand identification. This can be done in many ways. Sometimes the name can be reduced. Sometimes it is advantageous to use the whole word. In other cases it is advisable to change the existing name if it is too cumbersome and hard to handle. The more room you require for brand identification, the less room there is for other selling copy and, without brand identification, you lose the force of your advertising.

Contents can be handled in many ways in addition to the definite requirements of the law. You must state

the weight, but you can also say, "Makes 50 cups," or "Double strength" or "less than 1 cent per serving." Whatever you think is the best selling story, such as "Good to the last drop," should be shown. Any device or simple illustration that tells your story faster than words is interesting and good. For instance, on a tea bag package, I have illustrated a tea cup with a tea bag. This simple device quickly says "tea" and certainly "tea bags."

A cube uses the least amount of cardboard for a given cubic area. However, this also gives you the smallest display space. There are no fixed rules governing the proportions of a package. It should stand well and stack easily for the convenience of the dealer. Usually it should be tamperproof. Many times, it should re-close easily and should have a good display face. Included in the considerations of size and shape you must be sure the package is practical to fill automatically at high-speed, that it will pack efficiently into a shipping container. Always you must keep in mind that the objective is sales volume and volume production at the lowest practical cost.

Once the display face has been determined (this being the eye catcher of the package) then you have five more faces to consider. The top is usually a good place for brand identification and space for self-service stores to mark the price—and I mean a *good* place to mark the price. Try to make it useful and practical. If the stock clerk must use a grease pencil on your package, he will probably carry on and smear up all of the packages he has to mark that day. If you don't make it convenient and practical to use, the stock clerk will find a way, and more than likely, he will mess up the display face of your package so that your brand name, your selling message, etc., are practically obliterated.

The bottom of the package is not too valuable but it should be considered as possible selling space and not ignored. This space can be used to designate other available sizes, other blends, cross advertising of other products or some good selling message, even though it may be a repetition of arguments you have used elsewhere on the package.

#### Two-faced packages?

Then there are two sides and a back to use to advantage or to waste. Many salesmen have told me that some packages were so small that without two display faces, half of the packages would be put on the shelf backwards. This is not true if the package is properly planned. My advice is: Don't straddle the issue. Don't try to have another face with more copy on it. Make it distinctly the back of the package and you won't find it turned backward on the shelf.

The display face of the package attracts attention and prompts sales. At the same time, the sides and back of your package represent thousands of dollars worth of advertising space. A good package will sell itself and good use of the available space on the package will create re-orders. A poor package will even retard your advertising efforts.

Nor is the package merely valuable in selling the consumer. Before the consumer, your salesman must sell the dealer. The average salesman is a busy man. He does not have much time to do selling. Five years ago a friend of mine conducted a test. Five salesmen in metropolitan New York kept a time card on everything they did from the time they left their homes in the morning until they returned at night. Another five salesmen, working in the South, kept an identical record. At the end of two weeks this score card was produced. In the North, the salesman found he had exactly 3½ minutes of actual selling time to devote to the grocer on whom he called. The rest of the time was spent waiting his turn, helping the grocer move boxes or just talking politics. In the South, the salesman averaged 9½ minutes. Things are done more leisurely down there. Each salesman averaged 80 calls per week. Therefore, the salesman in the North spent exactly 80 times 3½ minutes or 4 hours and 40 minutes per week selling. In the South, the salesman spent 9½ minutes per call—80 calls per week, 12 hours and 40 minutes per week selling.

Keep in mind that grocers are also customers and must be sold. They like or dislike packages and labels. If the salesman has only a few minutes to make his initial sales, the right kind of package will certainly make his work a lot easier on the first call, and if the merchandise turns over, the salesman can spend less time on this customer. All this tends to cut distribution costs which should be a part of the function of package design.

It is my prediction that packages will become greater advertising media when sales and advertising departments learn more about the selling value of the package. It is our mission to point out those values. Our files are full of case histories of what has happened to the sales of a product that was given a new "suit of clothes," or a "new dress."

It is obvious, too, that the growth of self-service stores puts a greater burden on the advertising value of the package at the point of sale. Today 75% of all food stores are self-service stores. According to *Sales-Management*, eight years ago only half of the food stores were self-service.

No doubt you have visited some of these giant markets, selling conservatively four times the volume of the old corner grocery store. Have you noticed the lack of point-of-sale display materials? In an old-fashioned grocery store you saw everybody's display material—many six months to a year old. But not in the modern store. Store display material is getting harder and harder to get up. Most of it gets in the poorer outlets where sales possibilities are small. Most chain stores use big window posters. You may talk a chain into displaying your brand name on window posters. You may get some window posters up but this will not sell your product, because it is too spotty and is not consistent. In self-service stores your package is always on display. It provides advertising space you cannot buy. Are you using it well?



### *Simple for shoppers*

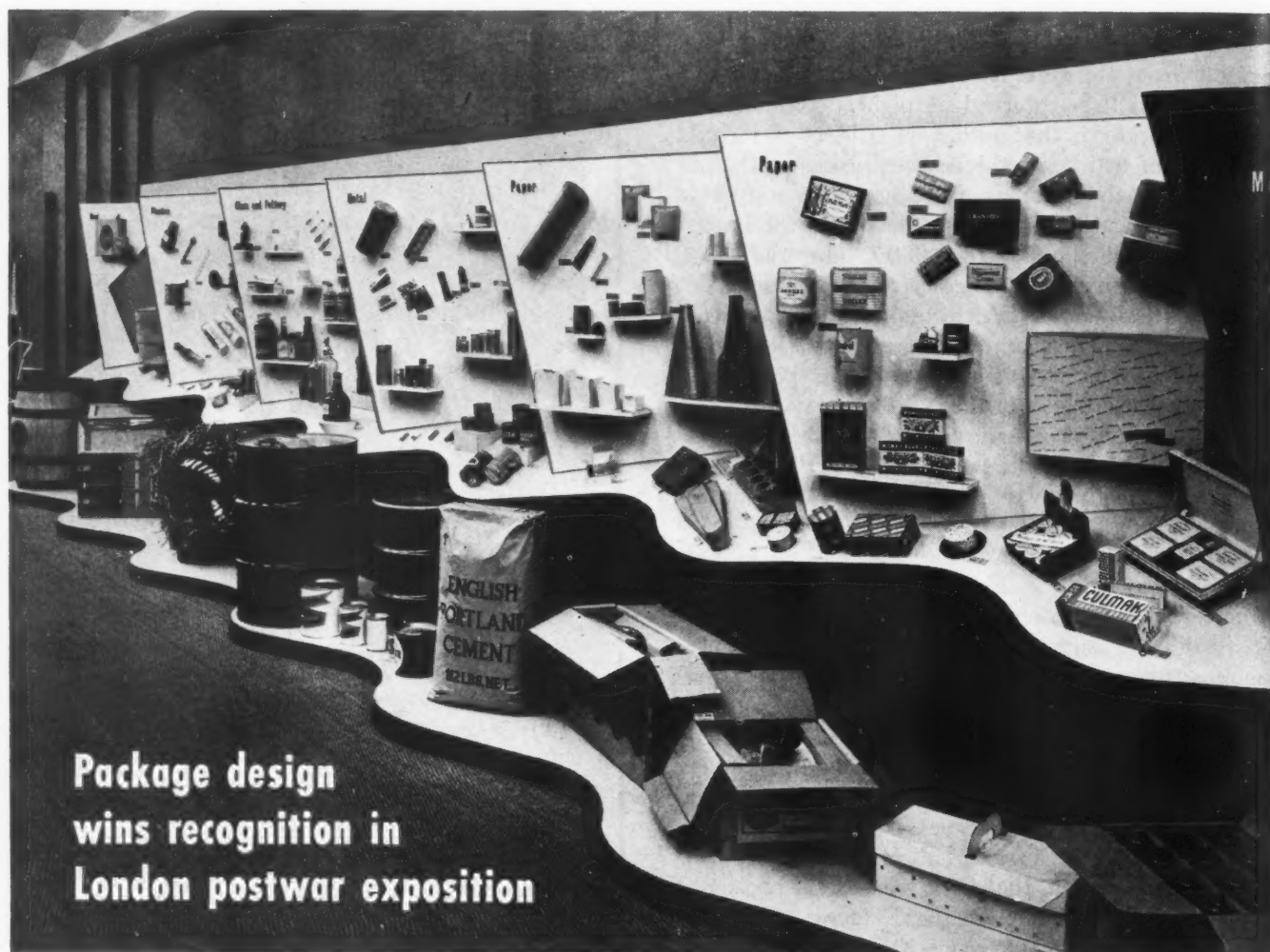
A study made in the Red & White Food Stores, Chicago, reveals that the housewife, left alone to choose her own brands, chooses the package with simple design. As a result, in the redesigning of the entire line of Red & White packages for self-service selling great emphasis has been placed on the circular trademark and simplification of the commodity lettering as can be seen in the breakfast food packages, first to be modernized.

The new package (right, above) is red and blue printed on white patent-coated stock. In contrast, the old style package (background) was an elaborate four-color job. Below is the new tray pack of individual-size packages, each a miniature reproduction of the regular sizes. Extra protection is offered these small sizes by a double cellophane wrap—each box wrapped individually and the whole unit overwrapped again to include the tray.





# British packaging makes it



**Package design  
wins recognition in  
London postwar exposition**

*Materials section of Packaging Hall at "Britain Can Make It" exhibit, Victoria and Albert Museum.*

*by John Cain*

**T**he chief thing to remember about "Britain Can Make It" is that it is *not* a trade fair.

A fair it certainly is—with color and gaiety and a multitude of delights. But *not* a trade fair. In the

*"Britain Can Make It," Britain's great postwar exposition of industrial design now showing in the Victoria and Albert Museum, London, provides an opportunity to review current trends in British package design. No one is better informed on that subject than the author of this article, written for MODERN PACKAGING by the editor of Shelf Appeal, our British counterpart, which this month makes its re-appearance after a wartime hiatus.*

whole length and breadth of its two crowded acres, there is nothing anywhere that you can buy or sell. And the visitor to the show who arrives expecting to be canvassed, or hoping to place an order, may search every inch of it without finding anything to spend his money on—except his ticket of admission.

"Britain Can Make It," is an exhibition of design in industry, Government sponsored, bringing together beneath a single roof the pick of the consumer goods from all the industries in Britain. Out of the 90,000 sq. ft., which is the exhibition's total area, the "Packaging Hall" occupies 13 ft. by 80 ft., into which it has had to compress its entire repertoire.

## **Significant pointer**

The fact that packaging is represented at all must be regarded as a significant pointer. For, looking back 10 years, it is as inconceivable that a British exhibition of this kind should have included a section on packaging as that it should have included one on the atomic bomb.





2

Two examples of Coats-Clark redesigns by Barnett Freedman, shown at the exposition. Hundreds of packages in the line have been given family tie-up; some of them use reproductions of surface textures of woven materials.

"Britain Can Make It" is keyed to the popular taste; and it is a measure of British packaging's assertive vitality that it should now be considered of sufficient status to take its place alongside the greatest of the consumer goods industries.

Packaging, in fact, in the popular sense, has definitely "made it"...

But a word of warning. The American visitor who comes to the show, expecting great news of British package design, will find little that is new among much that is already familiar. But let him remember the object of the show, and particularly the public for whom it is staged, and he will see that any other presentations would have been impossible. In addressing themselves to the man in the street, the designers have had to turn the spotlight away from the more technical developments in order to pick out and emphasize the basic, elementary principles of good packaging.

Thus the first scene, which dramatizes the days "when great grandmama went shopping," shows the typical shop interior of the cracker-barrel era, with a fly on the butter slab and a cat in the sugar bag. Scene two points the moral by explaining that "nowadays when you go shopping, you get your favorite brands perfectly packed and fresh as a daisy."

The five "musts" of good packaging, characterized in the British trade as Availability, Protection, Identification, Appearance and Convenience, are given freshness and punch by a series of effective presentation tricks, reducing the argument in each case to its simplest, dramatic form. Example: a limp fish in a sheet of newspaper set abjectly beside a smart tin of "glazing compound." The materials section consists of seven panels in echelon, carrying specimens of the seven primary raw materials, beside specimen packages which illustrate their characteristic constructional features.

Packaging for wartime brings the story virtually up to date with a series of photographic studies, showing standard shock- and tropic-proofing techniques; hot-wax dips, strip-coatings, heat-sealed envelopes, wet-strength papers and boards, multiwall bags and a variety of foil and plastic laminations.

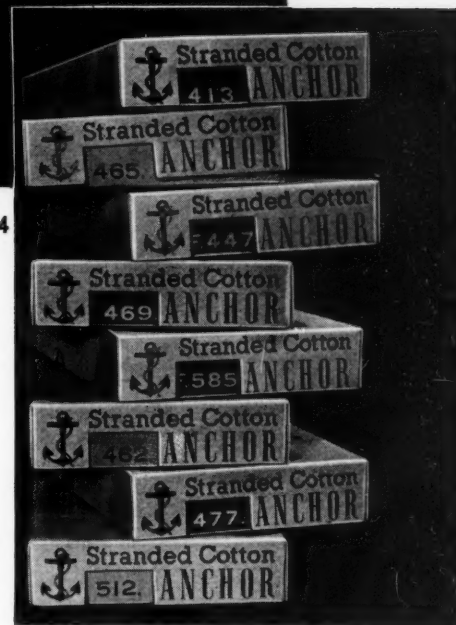
(Page 117)



3

Typical old and new comparison (above) shows modernization without any loss of recognition value.

Cut-out end panel of box lids, permitting stock number to show through from base, permits standard lid for a large line of thread and avoids danger of mix-ups in the store.



4

Finally, the spotlight is focused on a selection of typical postwar designs.

#### Shortage of raw materials

But, before considering them, it is only fair to remind ourselves of the acute and crippling shortages of raw materials which still exist in the second year of total peace. Fourteen months after the Axis collapsed, the hand of the Controller maintains as drastic a hold as ever it did during World War II. As recently as June of this year, for example, all outstanding orders for tinplate were canceled, except for canners of perishable foodstuffs. New bottles are virtually unobtainable (we even hear of one manufacturer, in dire need of small glass containers, who bought up 20 gross of aspirin from chemists' shops, tipped out the aspirins and used the bottles!). Paper is critically short. Box-board is

Richard Lonsdale Hands' new designs for Snowfire are typical of current British cosmetic trend. Pastel colors, strong typography, family identity, distinguish line.

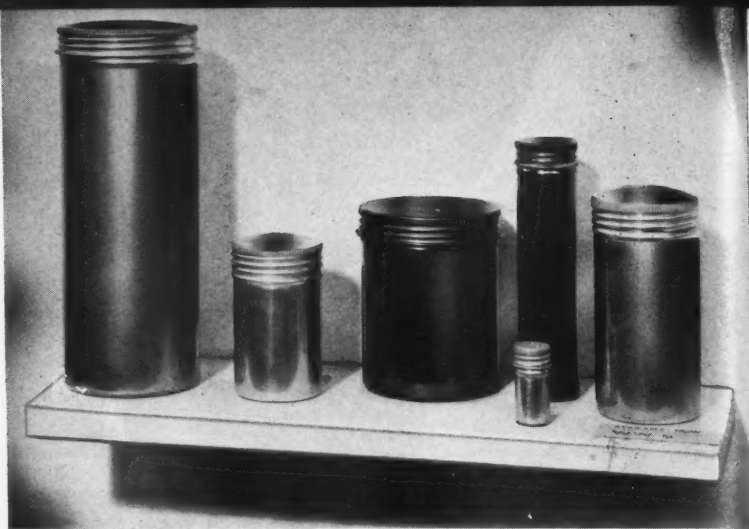
5





6

*New labels for Scrubbs household products, also by Lonsdale Hands studio, show modern departure from traditional cluttered British label.*



7

*These extruded aluminum containers, with anodized coloring, are among the technical advances new to that country displayed at the "Britain Can Make It" Exposition.*

brittle, and so bad in color that only the darkest inks can be printed on it. The makers of plastic molds have orders on hand which, if they could meet them, would take them at least two years to fulfill. And it is against a background of such ominous potential that the packaging show has been staged.

Star of the show is the huge Coats-Clark range of sewing threads and embroidery materials, designed by war artist Barnett Freedman, whose canvases on the building of the Mulberry Harbor have been widely admired. In re-designing this famous old range of drapers' boxes, Freedman has undertaken a job which compares, at least in magnitude, with the Mulberry itself. Some scores of different lines, in hundreds of different cartons, were involved; and his task was to give them all a family resemblance without losing their separate identities, at the same time giving them good stacking qualities and making replacement orders easy and accurate. His handling of the job makes effective use of four over-all, background patterns (printed on all six sides of the cartons) that have been designed by the artist from the surface textures of common, woven materials. Lettering employs a variety of good type-faces, Rockwell, Sans Serif Grotesque, Bodoni Heavy

Static and the little known, highly stylized Victorian face Walbaum. Range variations ring the changes on four main colors which, in conjunction with the assorted background patterns, gives required differentiation.

The Snowfire range of cosmetics (favorite of the multiple stores) and the Scrubbs range of ammonia and cleaning fluids—both by the Lonsdale Hands partnership—are outstanding for their color and their typical British treatment of the lettering.

#### Aluminum containers

On the technical side, the prominence of extruded aluminum throws into relief the versatility of the container industry faced with a continuing shortage of tinplate. In their new, postwar form, these aluminum containers are not only being produced to bigger dimensions (measuring in some instances up to three inches in diameter and seven inches in length) but are capable of taking, by fully automatic processes, a large number of new closures and dispensing devices which make them eminently suitable for cosmetic and drug store lines. Examples are also shown of aluminum containers in beautiful, anodized colors—a process which, though expensive, promises to overcome the difficulty

*Old and new Lyons Tea designs by Kathleen Darby show striking cleanup, gain in visibility.*

8



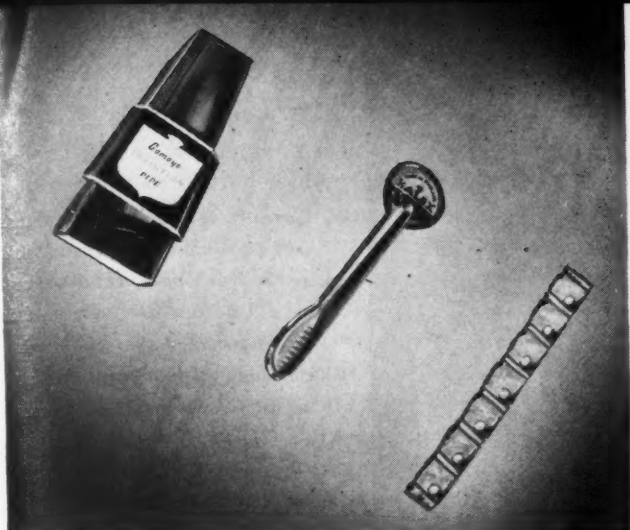
*Interesting package for Rolls Royce bushings is this molded pulp container made by Universal Pulp Containers, Ltd.*

9

PHOTOS 9, 11, 12, 13, BRITISH INFORMATION SERVICE







10

*The transparent plastics section shows pipe in window box, an interesting form-fitting toothbrush container and units packs of medicinal tablets in film.*



11

*Every British family has its tin box for deeds and valuables. This paper carton, set up by stapling, is the new package for "deed box" by Chubb & Sons, Ltd.*

which still faces the designer when working on the formed cylinder.

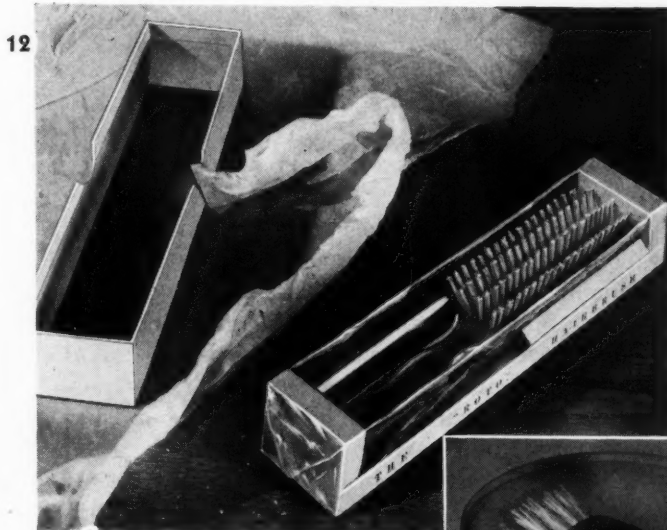
A new process of firing ink mechanically into glass, gelatine or plastic has been perfected, which cuts labeling costs and enables a permanent printed design to be applied at a competitive price, and at production rates of 1,000 an hour and upwards.

Laminated plywood makes its first appearance in the packaging field, with the new, mass-production beer barrel.\* Since beer is, by tradition, always stored in oak, the inside ply is made of a thin sheet of British oak laminated by a phenol-formaldehyde resin to birch and other woods less affected by the timber famine. The barrel, which is produced in the standard cooper's sizes, is made up of identical staves which are being turned out by machines on a quantity-production basis.

Prepackaged fruits and vegetables are still driving with the brake on in Britain, due to the continuing scarcity, not only of packaging materials, but of the foods themselves. However, one firm has ventured boldly into the field with a new tray package for tomatoes, very similar to those used in the United States. The fruit is graded by size instead of weight, and the transparent over-wrap makes a sparkling appetizer.

On the export side, wartime techniques of tropic-proofing have been given peacetime significance with a variety of typical wax-dip, moistureproof packings for machine tools and car spares. And an alarm clock packed for world shipments in "Branscrim," made up of laminated paper, wax and scrim which is acid-free, grease-resistant and pressure sensitive, shows some of the more promising potentialities in this field.

While these examples do not by any means exhaust the novelties of the Packaging Hall, they are a representative selection, sufficient to show that British packaging is once again in good trim, using its reserves of skill and resource to make good the deficiencies which still exist in materials and machines.

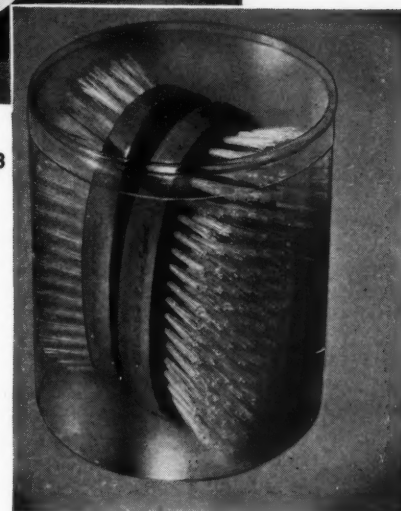


12

*Two transparent packages for brushes. Above, a tray wrapped in cellophane, with telescope lid, for hair brush. Right, fully transparent cylindrical container shows off pair of military brushes.*

13

*Below, first two of redesigned line of packages for Southall, the famous British manufacturer of surgical dressings.*



14



\* See "Plywood Cooperage—a British Innovation," MODERN PACKAGING October 1946, p. 114.





Corning's 1946 Pyrex Ware gift pre-packs. Corning had seven factory-packed assortments before the war, and is getting back to set packaging as fast as production and supply conditions permit.

## Pyrex ware back in sets . . . it pays, says Corning

The advantages of a pre-pack for china and glassware, housewares and appliances are obvious, but only a few manufacturers and retailers, comparatively speaking, have fully realized the tremendous importance of this type of packaging as a merchandising tool and as a protective and labor-saving factor of distribution.

Corning Glass Works is an outstanding example of a company which has used the "set" idea of packaging. Before the war, the company had seven factory packed assortments of its Pyrex ware but during the war it was necessary to discontinue all set packaging due to shortages of carton stock and the ware itself.

"Now we are getting back to set packing just as rapidly as possible," the company states, "as we firmly believe it is an important feature of our sales program."

For this year's Christmas promotions, Corning is pushing two packaged sets—the Pyrex 11-piece gift set carton, which has been newly designed to carry out the

company's thoughts of what such a package should be, and the 3-piece Pyrex Flameware set.

Acceptance has been so enthusiastic, the company says, that it is producing four times as many sets for the holiday promotion as it sold in any previous year and still the supply may not fill the demand.

A great part of this success is attributed to the packaging idea. In the first place, the packaging means selling several pieces of Pyrex ware instead of one. Packaged sets make a much wanted gift and Corning figures indicate that 50% of sales are probably made for gifts. Dealers like the pre-packed sets because they save the labor and trouble of wrapping and packing. The packaged sets lend themselves to good display and also provide an excellent means of getting sample assortments of Pyrex ware into a new user's hands and thereby selling related items.

The complete cost of the packaging is absorbed by Corning and the price for each package set is exactly the same as the sum of the prices of each individual item in the sets when they are sold individually. All Corning's prices are fair-trade and thus the dealers' protected mark-up is just as great for sets as for individual items. Neither dealer, distributor nor consumer absorbs any of the cost of the set packaging, yet Corning's experience has proved without a doubt that the many advantages offset the slight additional costs incurred by such packaging.

Both of the Pyrex set packages now on the market combine good features of display and protective packaging. Both cartons are lithographed chipboard. Protective materials used for the interior packing consist of non-test corrugated board, tissue and shock-absorbing paper. Required protection is determined by the

*Two pieces of scored corrugated board protect 3-piece flameware set, provide a pocket for the detachable handle. Cushioning paper is used between the glass bowls.*

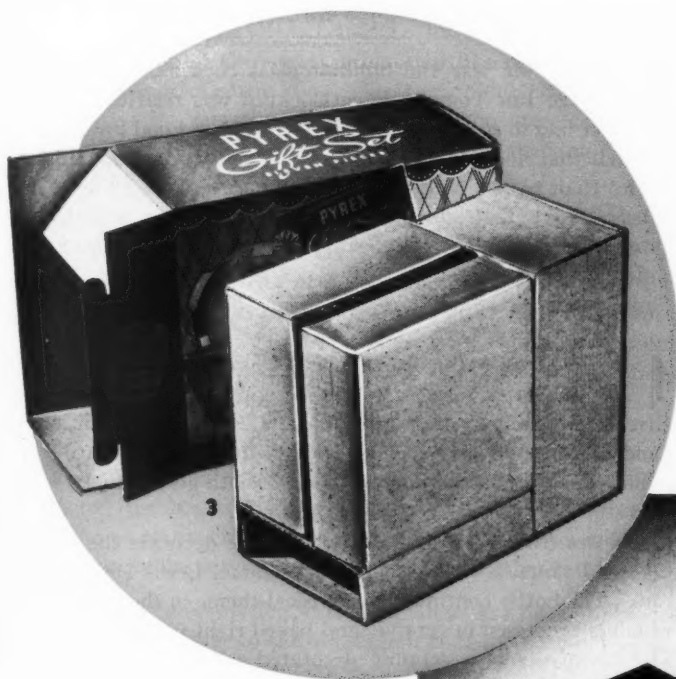
2



use of a drop tester. Requirements are based on the company's handling and storage facilities and channels of distribution. A complete package is tested according to its weight and with all the above reasons controlling the severity of the test.

The company designs all of its own packing material. Construction is under the direction of a packaging engineer in each plant with a staff consultant for the company who advises each plant upon request. The sales and advertising departments are responsible for surface design and informative data on the packages in cooperation with the advertising agency and display agent.

Most of the interior corrugated material used is flat corrugated board, cut to size and scored according to construction specifications. Sleeves are used in some cases. The three-piece Flameware set is arranged so that only two pieces of scored and folded corrugated are required to protect the items and the detachable metal handle. The skillet and two sauce-pan bowls are nested together with squares of shock-absorbing paper between. One piece of corrugated is then folded around the ware. The second piece is folded around in the other direction in such a manner that a compartment is provided to hold the detachable handle (Fig. 2). The assembly is made the right size to fit the carton.



*Above: Interior packing for 11-piece ovenware set is comprised of four rectangular-shaped units.*

*Right: Four units open show how various pieces are arranged with cushioning paper and corrugated.*

The inside packing for the ovenware gift set, because it involves the placing of 11 various shaped items in a minimum of cubic content, presents a more complicated construction problem. Corning engineers have solved this by fitting all the items into scored corrugated pieces and sleeves that fold into four rectangular forms, which when fitted together make a larger rectangular shape that fits precisely into the color-printed gift carton (Figs. 3 and 4). One of these small rectangular scored pieces contains a casserole dish and cover. The cover is placed with handle inside the casserole dish and a square of corrugated between. The corrugated piece has a hole in the center to allow the handle to protrude into the dish, so that there is no wasted space above to accommodate the handle. The second rectangular unit holds the pie and cake dishes, nested and protected by pieces of cushioning paper. The third unit contains the utility dish, loaf pan and six custard cups. The custard cups nested together with tissue paper are placed on their sides in a double-sleeve arrangement. A die-cut square of corrugated board fits over this. This assembly is placed so that it fits between the utility dish and loaf pan when they are placed together, giving protection to all three. Outside, the scored and corrugated pieces are folded around the items. The fourth unit is an empty to fill slack space and keep units from shifting.

Where possible, each item is packed too so that it can be used for set packing or ordinary bulk packing.

From the surface design standpoint, the company believes that the gift cartons should have eye appeal, family resemblance and illustrate the ware contained. The family idea is carried out by the use of a blue background and the illustrative treatment to show contents. Front and back panels of the package for both sets carry large pictures of contents. Trade-name is displayed prominently on all sides of the packages. Side panels are used for descriptions of contents and suggested uses.

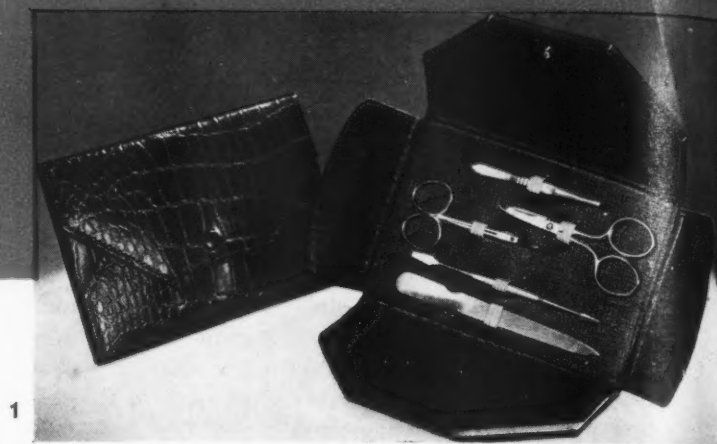
**CREDITS:** Display cartons, F. M. Howell & Co., Elmira, N. Y. Corrugated containers and interior packaging, Corning Fibre Box Corp., Corning, N. Y.

4





# Packaging Pageant



**1** A foldover alligator-grain gift case containing five Cutex manicure implements is being promoted by the Northam Warren Corp., Stamford, Conn., for its new line of cuticle cutlery products. Made up in red or blue this is one of three popularly priced sets the company has ready for this season.

**2** The new four-color design for Trudeau Candies, Inc., Seven Up bars is a startling improvement over the former plain white box printed in red shown in the background. The new package is a telescope folding box in red and black with a natural chocolate brown for the bar. Touches of yellow in the lettering add a fillip of color. Design, Harold W. Darr Associates, Minneapolis, Minn. Box, Hummel & Downing Co., Milwaukee, Wis.

**3** During the war the familiar glass cocktail shaker for College Inn Tomato Juice Cocktail was restricted and the juice had to go into cans. The College Inn Food Products Co. felt that no better identification of the product could be found than to put a reproduction of the shaker on the can labels. Now that glass is easier to obtain the company intends to pack this well-known product in both mediums for different markets. Label, Independent Lithograph Co., San Francisco, Calif. Cans, American Can Co., New York.

**4** A tiny transparent acetate box with platform sets off the gold with rhinestone topped case for Marie Earle's Giselle lipstick. At the same time the company introduces Golden Morn, a special blend cream, in an all gold package—a milk glass jar with plastic screw cap—both gold plated.

**5** Notes from the original Chopin score decorate the box for Polonaise, a new cologne by Marcel Lewis Distributors. The bottle continues the musical theme in the labeling which is processed in ceramic and baked right into the glass. The closure is also ceramic decorated with golden notes. The plastic screw cap is sunk into the ceramic closure by a patented process. Bottle, Glass Containers, Inc., Los Angeles, Calif. Labeling process, Box, Stylepak Box Co., Los Angeles.







**6** New packaging for a luxury line of greeting cards by The Rumford Press, Concord, N. H., utilizes this transparent plastic box, made by a new process which allows the acetate sheet to be folded and set up without cement (see MODERN PACKAGING, June 1946, p. 130). The beauty and excellence of the cards stand out on display. Boxes, John H. Oxley Co., Watertown, Mass.

**7** A packaging tube has been adopted by Marsh Wall Products, Inc., Dover, Ohio, to provide quick and easy identification of more than 50 varieties of moldings in dealers' storerooms. The new package contains 24 pieces packed four to the envelope, six envelopes to the tube. Newly designed, circular labels are fastened to the ends of the tubes to tell number of pieces, size, style and shape.

**8** An unusual Christmas promotion has been started by Sylvania Electric Products, Inc. The company has packaged its versatile infrared lamp in an attractively designed gift box stressing the various uses for the lamp. Carton, Bartgis Bros., Baltimore, Md.

**9** A polystyrene re-usable container for the Stahly Stroke Razor has a water-clear transparent top hinged to the base of red and black. Only one-half of the top opens; the other half is permanently attached to the base. The case offers easy access to the razor as well as full protection. Material, Lustron, Monsanto Chemical Co., Springfield, Mass. Molded by G. Felsenthal & Sons, Chicago.

**10** A vinyl zipper case holds three miniature grooming items and is a product of Hughes Brushes, Inc. Promoted for the Christmas gift-giving season the Mini-Kit contains an exact replica of the Hughes hair brush in miniature as well as a pocket comb and a tiny clothes brush.

**11** The modern design for Climalene has no resemblance whatsoever to the old, except that they are both blue. Simplicity of design and emphasis on color and lettering make this a good self-service package. Design, Martin Ullman, New York. Carton, Ohio Boxboard Co., Rittman, Ohio.

11



10





**12** Pinafore Whole Chicken, the latest addition to this line packed by Chicago Western Corp., is packed in a lithographed can. The background is bright yellow with lettering in red and black. A golden brown whole roast chicken in natural color is superimposed on the white pinafore. Cans and lithography, Continental Can Co., New York.

**13** The Radiant Mfg. Corp., Chicago, manufacturer of projection screens, has brought out a new box (foreground) for its carrying case which is more than just a protection for the case—it is a definite sales aid. A reverse tuck folding box of white litholined board now carries a distinctive design in maroon, black and white. Design, Morton Goldscholl, Chicago. Carton, Kenmore Mfg. Co., Chicago.

**14** Three bottles of different sizes are packaged in this black and yellow folding carton by the One Two Three Co., New York, containing ingredients to mix one gallon of lemon flavoring for institutional use. Intricate interior packaging holds all the bottles up to the proper height in the carton so that the caps protrude through the lid. This arrangement facilitates mixing since directions state that the bottles should not be removed from the carton. A long slit down both sides of the carton allows the bottles to be grasped firmly and the contents of all three poured simultaneously.

**15** Esmé of Paris puts three of her scents in purse-size flacons and dresses them up for the Christmas trade. A tiny clay snowman, made by one of the country's leading toy manufacturers, clutches a vial of perfume in one arm. When the perfume is removed the opening into which it slips is just large enough to hold a Christmas candle.

**16** A blue and gray stylized design of fir trees decorates this folding carton for the Pine Wax Shorty—a chunky Christmas candle made by the Will & Baumer Candle Co., Syracuse, N. Y. The carton opens into a display. Carton, Lowman Folding Box Corp., Syracuse, N. Y.

**17** Elizabeth Arden's On Dit Carousel perfume uses a fragile, frosted French bottle with bas-relief profiles of lovely ladies whispering to one another set on a die-cut plat-







18

form. The outer box is a revolving merry-go-round of illustrations in the manner of Raoul Dufy.

**18** Letter Man Toiletries—for the teen age boy—feature masculine reproductions of actual photos of sportsmen. Tying in with the name, the photos include football, water sports, baseball, etc. Bottles are boxed in window packages. Caps, Richford Corp., New York. Bottles, Swindell Bros., Baltimore, Md. Labels, Elm Press, New York.

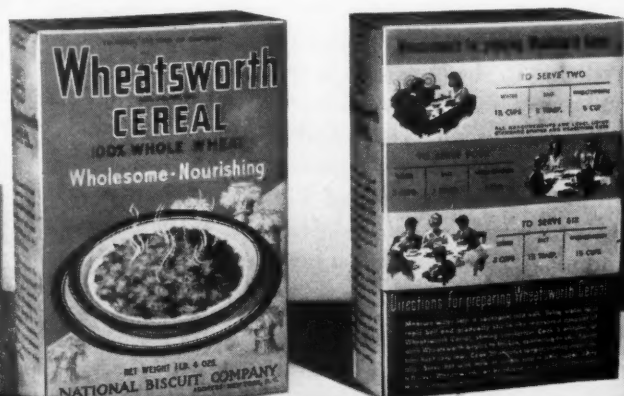
**19** Iglehart's well-known Swans Down design has been adapted to General Food's new package for Swans Down Self-Rising Cake Flour. In place of the familiar red background, however, a cool, clean green has been used. Design, adaptation of original by Jim Nash, New York.

**20** A set up box with a die-cut platform sets off the latest beauty aids introduced by Delettretz in conjunction with Sylvania Electric. Called Cosmetron, the set consists of a special oil in a squat beribboned glass jar plus a beauty lamp. The box top illustrates use of the products. Box, Quartin Specialty Box Co., Inc., Brooklyn, N. Y.

**21** Outer-wrapped in gay Christmas paper, the Rubaiyat lifetime phonograph needle is encased in a small polystyrene container which is bedded in a die-cut platform and the entire assembly, including the lifetime guarantee, is packaged in a sueded, hinged-lid box, gold-leaf stamped with the name. Box, The Warner Bros. Co., Bridgeport, Conn. Sueded paper, Frank Schulman Paper Co., New York. Container, Amos Molded Plastics, Edinburgh, Ind. Gold leaf stamping, Peerless Roll Leaf Co., Inc., Union City, N. J.

**22** A package which invites handling is considered an advantage in self-service selling. For this reason the National Biscuit Co., in redesigning its Wheatworth Cereal package, has strengthened both color and design of the front panel in orange, yellow and blue. The reverse panel is perhaps most interesting. Here in clear and graphic form are measurements to serve two, four and six people.

22



# Packaging Pageant

19



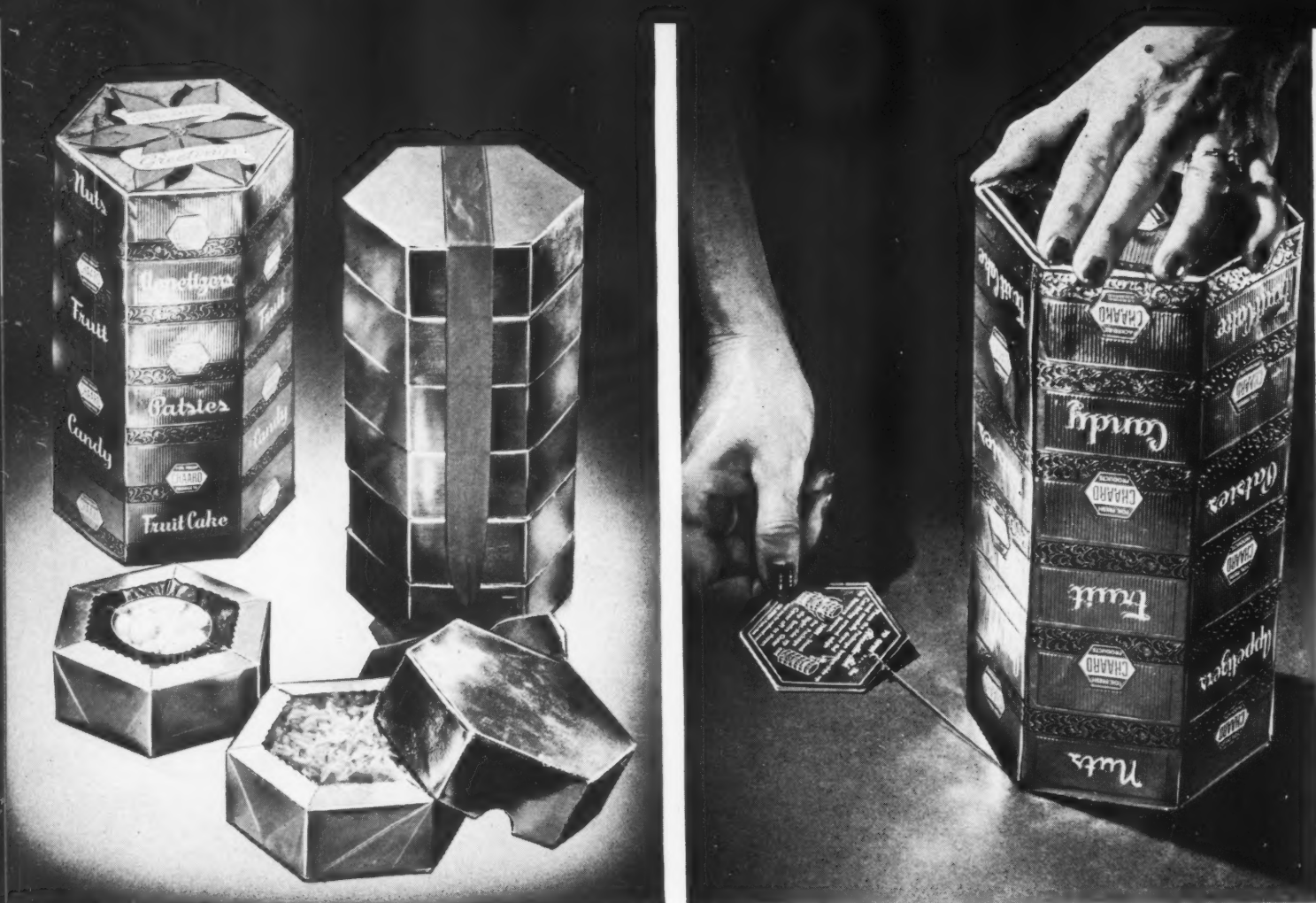
20



21







*Novel in design and outstanding in protection is the Poinsetta-Pak (left), containing six gift delicacies in separate hexagonal<sup>®</sup> foil-laminated telescope boxes, the whole tied with a red ribbon and bow, covered with an embossed foil sleeve and sealed with poinsettia end-stickers and tagged rip-cord. Right, tag attached to rip-cord under top end seal instructs recipient to invert package, pull cord, lift off cover.*

## "Foil-fresh" . . . delicacies in unusual gift packages

No one seriously questioned the need for a note of austerity in much of the wartime packaging of civilian products, but many deplored it. On the credit side of the ledger was the fact that the war years, which brought many packages that appeared drab and lifeless by prewar standards, engendered a keener appreciation of the attractive postwar packages now appearing on the market.

One of the outstanding gift packages brought out since the close of hostilities is the Poinsetta-Pak multiple package developed by Chaard, Inc., of Lansing, Mich. This unorthodox container, which derives its striking appearance from a handsomely embossed and printed outer wrapping of gold aluminum foil, contains assorted nuts, a fruit cake, appetizers, selected chocolates, glace fruits and Patsies, a cheese-coated shredded potato delicacy. It capitalizes on the element of surprise experienced by the recipient as the successive inner packages are opened.

The foil outer wrap of the large hexagonal master

package is opened by means of a rip cord. The recipient is instructed, in the folder attached to this rip cord, to lift off the foil-covered sleeve, exposing the six inner packages. These lidded trays are of identical shape and size, stacked atop one another in the outer container.

The inner packages are of 0.0005 aluminum foil laminated to both sides of 0.015 paperboard. Trays and lids, constructed with gold foil on the outer surface and silver on the inside, carry no printing and may be used later as ash trays, jewel boxes, etc. Lids are thumb-notched for easier opening. The various nuts, fruits, candies and other foods are packed directly into the trays, which are overwrapped with cellophane and heat-sealed. In the appetizer tray, ounce bottles of olive oil and wine vinegar, and the 2-oz. tin of anchovy fillets, are nested in shredded paper.

Essentially a hand operation, preparation of the Poinsetta-Pak consists of filling and lidding the six trays, wrapping them, stacking them in proper order and placing them within a hexagonal paperboard sleeve

on which the embossed foil wrap has been heat-sealed. The sleeve covering operation is performed accurately by hand, using a wooden form to hold the sleeve in shape while the wrap is applied.

After the master package has been filled with the individual trays, the top and bottom of the wrap are folded and heat-sealed and the foil-covered decorative ends, one of which carries the rip cord, are sealed in position. On mail orders, the complete package is placed in a corrugated shipping container with decorative address label.

The beauty of the Poinsetta-Pak is much more than skin deep. In addition to its merchandising appeal, the package is reported to do an outstanding job of product protection. This is a particularly vital consideration, since the package contains several food products which are highly perishable in nature and commands a substantial price.

Much of the burden of protection falls on the outer wrap of printed aluminum foil, on which all seams are heat-sealed. The inner compartments are not sealed, but flavor transfer is said to present no problem with the types of foods packed. The embossed outer wrapper is comprised of a lamination of aluminum foil, paper base, wax and a final layer of porous tissue. During the heat-sealing operation, the wax bleeds through the tissue, forming a tough, fibre-reinforced, leakproof seal. The metallic surface of the wrapper prevents the penetration of light rays and also provides a positive barrier to water-vapor transmission.

#### Other gift wraps

Chard is also producing four other gift packages with embossed foil overwraps employing the same construction. These include 5- and 10-oz. hexagonal packages of Kristies (the same processed potato-cheese delicacy) and 8- and 16-oz. assortments of Foil-Pakt Nuts. Green and gold letterpress printing lends distinction to the Kristies packages, while black and gold comprise the eye-catching color combination on the Foil-Pakt Nuts.

Chard again turned to aluminum foil in packaging its Tatsies, a French-fried, cheese-coated potato shred now going into national distribution in retail grocery outlets after a test sales program in selected Michigan stores. Tatsies are packed in attractively printed heat-sealed laminated foil envelopes carrying a net weight of 1½ oz. The envelopes are printed by rotogravure process in red, green, white, yellow and brown. This product is also being put up in a 10-oz. folding carton with foil overwrap.

During the war, the Chard plant was engaged in the exclusive production of special overseas packaging for the armed forces, working with foil and various other materials in the packaging of bandages and ration components. The Poinsetta-Pak marks the firm's initial offering in the postwar civilian market.

**CREDITS:** *Reyseal overwraps and bags and Ply-Metal trays, Reynolds Metals Co., Richmond, Va. Paperboard sleeves for Poinsetta-Pak, Sutherland Paper Co., Kalamazoo, Mich.*



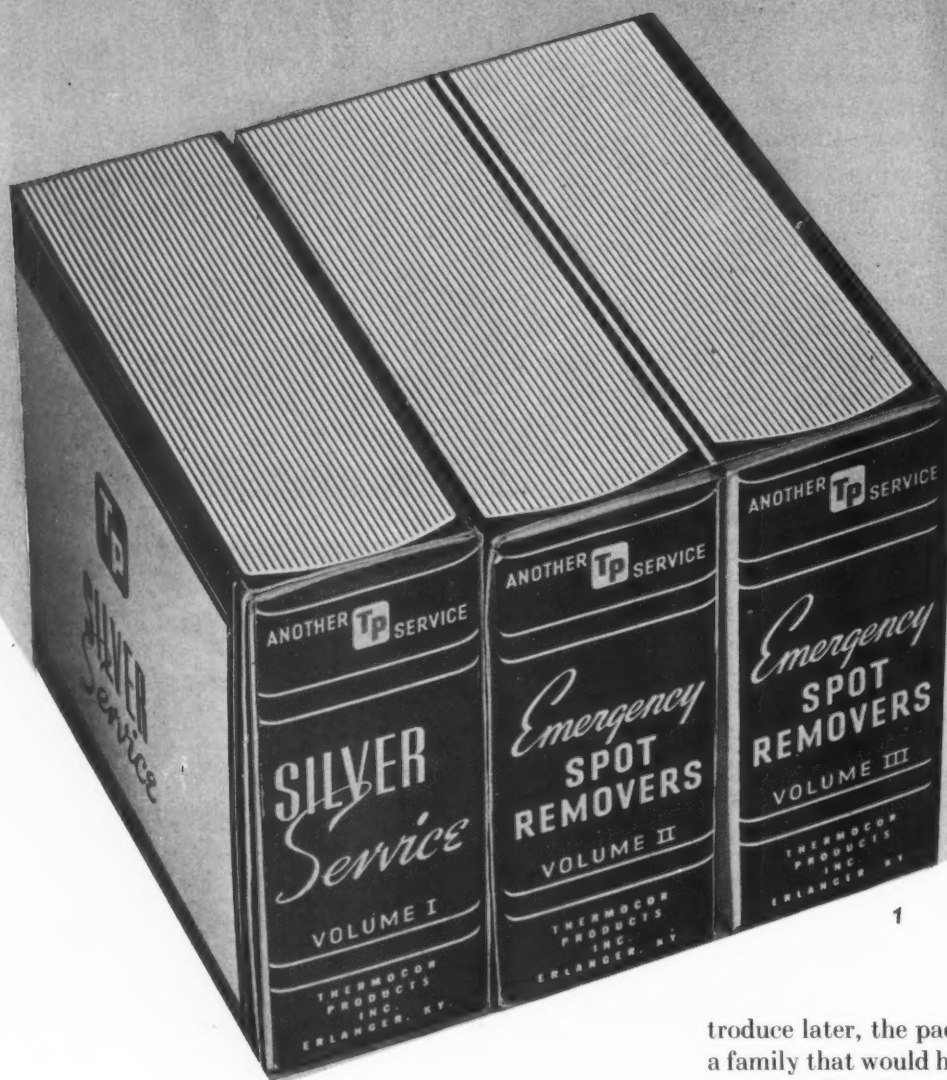
*Colorfully embossed foil wraps and hexagonal shape distinguish the other Chard gift packages as well.*

*A regular consumer item is Tatsies (below), a French-fried, cheese-coated potato shred packaged in a 10-oz. folding carton with a foil overwrap, shown, and also in rotogravure-printed, heat-sealed, laminated foil envelopes.*





# Housewife's library



... carrier packs  
for cleaning fluids

*The beginning of a whole family of packages for new household cleaning agents. Die-cut folding cartons in sleeves are made to look like books in a series. Packages must tell uses; be convenient for display and for home use.*

In most households, one dry-cleaning fluid is used on all kinds of spots. But one fluid will not remove all kinds.

In Erlanger, Ky., across the Ohio River from Cincinnati, a group of young chemists have introduced a complete home spotting service comprised of six bottles of different solvents which they claim will remove 98% of all kinds of spots from all types of fabrics. The product is being marketed by Thermocor Products, Inc.

The packaging of this product presented quite a problem. First, the package had to give protection to six bottles. It had to tell the complete story of how to use the six different spot removers—an entirely new idea for the housewife. The package had to be a unit that was convenient for the dealer to handle and to display the product. In addition, it had to be a convenient re-use container in which the housewife could keep all of the bottles together and structurally strong enough for continued use in the home. Since the spot removers are the second of a whole group of new household cleaning and polishing agents that Thermocor plans to in-

troduce later, the package had to be planned as part of a family that would have uniformity on dealer and home shelves. The first product in this line on the market was a three-bottle combination for silver cleaning and polishing.

The packaging problem has been solved by the use of heavy chipboard folding cartons and sleeves that can be made in single or double units. When closed with sleeve in place they are made to look like books. This gave the company the idea of presenting each group of products as "volumes" in the same series. The Silver Service thus became Volume 1 (Fig. 4). Since this contains three bottles, these can be placed in a single carton unit with sleeve. The carton is made with a die-cut flap that folds in behind the bottles to make a counter display unit and also serves as a carrying handle in the home, after the sleeve is removed.

The Spot Removers are comprised of six bottles of solvents which have been placed in a carton that consists of two sections, each of which has the appearance of the single carton used for the Silver Service. However, the two sections of the Spot Remover carton are joined together, so that they may be opened and set side-by-side for display as shown in Fig. 2 or turned backward so that the folded flaps make a carrying handle similar to Cola drink carriers for the whole unit





The specially designed carton for the Spot-Remover service may be opened for counter display as shown above, or bent backward so that flaps serve as a handle (right). Detailed directions are printed on back of the carton.

holding the six bottle set of spot removers (Fig 3).

The back of the package is used for directions, which in this case require lengthy description, since the housewife must know how to use the various fluids for the removal of a number of different kinds of stains. For example, there is a list of 38 agents most commonly spilled on clothing, such as iodine, ketchup, lipstick, nail polish, oil salad dressing, paint, etc. After each of these is the description of the remover solvents to use. For example, if you have a lipstick spot—you look for "lipstick" on the list. After the word "lipstick" it reads: "Bottle #1 until no more color is removed. Followed by Bottle #3. Repeat if necessary, etc." These specific directions are preceded with general directions and caution to follow the directions closely for best results.

All of the cartons are die cut in one piece. To give further resemblance to books, the tops of the sleeves are designed with ruled lines simulating pages.

Faces of the cartons are used for selling copy, product name and trademark. Two-color printing is used throughout, red and blue, with blue backgrounds predominating for the end design where the volume numbers are given. Round stock bottles are used with urea closures. Liners have been selected with coatings that are compatible with each of the solvents and polishes.

CREDITS: Folding cartons, The Gardner-Richardson Co., Middle town, Ohio. Bottles, Brockway Glass Co., Inc., Brockway, Pa. Closures and liners, Armstrong Cork Co., Lancaster, Pa. Designer, Russell W. Withenbury, Jr.

3



Silver Service, comprised of three bottles, is placed in single carton unit, similar to double one shown above.

4



# Frozen co



1



2

Opening of consumer sale of Maxson packaged frozen cooked meals at L. Bamberger & Co., Newark, N. J. Since then these plate meals have been introduced in 110 Newark outlets. Package consists of rectangular plate of molded fibre treated with a special thermoplastic coating to resist oven heat of more than 400 deg. Covers are lined with dead soft aluminum foil to protect against evaporation, retain juices and flavors. Removal of perforated strips when meals are put in oven provides for air circulation.



3



4



# cooked meals

## Maxson's consumer package

Housewives of Newark, N. J., went to Bamberger's department store a few weeks ago to buy the first of the Maxson cooked, frozen, complete packaged meals, ready for the oven and serving in the package. Since that time the packages have been introduced in 110 other Newark outlets and will be introduced in other areas just as fast as food supply conditions permit.

The packages are the first consumer adaptation of the famous Strato Meals introduced during the spring of 1945 (MODERN PACKAGING, June 1945, p. 102) some 500,000 of which have been served all over the world on planes of the Naval Air Transport Service and to passengers of Pan American World Airways.

L. Bamberger & Co. was selected as the outlet for the first consumer test area, with a list of 10 menus ranging in prices from 97 cents for a plate containing frozen hamburger steak and two vegetables to sirloin steak with two vegetables at \$1.63 and chicken paprika with two vegetables at \$1.98. Everywhere the packaged meals were sold out almost as fast as they could be stocked. Due to the acute food shortage, however, the company does not feel this can be considered a real test of demand under more normal conditions.

Development of the package was one of the most important factors in planning this convenient food item for consumer use. The consumer meals are contained in newly devised oblong plates designed for compact piling in the home refrigerator. The plates are made of a molded fibre treated with a special thermo-setting plastic coating to make them resistant to more than 400 deg. oven temperatures for final cooking in about half an hour. The covers are lined with 0.002 dead soft aluminum foil, cut to size and shape and applied by Maxson in its plant at Queens Village, N. Y. At either end of the aluminum-lined cover, there is a perforation where a narrow strip may be removed when the meals

are placed in the oven. These openings provide for air circulation. The remainder of the aluminum-lined cover protects against evaporation and assures retention of juices and flavor. The plate and cover are placed in a cellophane envelope together with a direction folder.

The plates are partitioned into three compartments, the largest one for the entree and the two smaller ones for vegetables. The meals, after being cooked in these plates, may also be eaten from the plates, which may then be thrown away, eliminating dish-washing.

Following the test at Bamberger's, the Strato Meals, fashioned after the airplane plates, will be available in other retail outlets in Newark; thereafter, in a widening distribution area. Another advantage of the variety of menus is the opportunity for the housewife to serve with the same preparation different menus to different members of the family, according to their food taste preferences. For example, if some members of the family like pot roast, she can buy pot-roast packages for them, and other menus for those who don't.

The consumer Maxson package is a decided improvement over the early ones used for Navy transport, which were compartmented round plates, similar to a picnic plate, without the protection of foil over the top for retention of moisture and flavor. The new oblong shape has also enabled the company to make the package attractive to retailers of frozen foods because it fits conveniently into frozen food storage cabinets.

CREDITS: Fibre plates, Keyes Fibre Co, Waterville, Me. Foil, Reynolds Metals Co., Richmond, Va.

Below: Ready to eat, meal may be served in package. Right: Plate is placed in cellophane bag with direction folder.





# Whither pre-packaging?

## ... views of a government marketing economist

Concerned with improving and expanding markets for the nation's agricultural products, the Dept. of Agriculture's Bureau of Agricultural Economics is vitally interested in the current rapid trend toward consumer packaging of fresh produce. For months it has been occupied with intensive research into both the broad economic aspects and the operational problems of pre-packaging.

From the vantage point of this survey, which is still in progress, F. L. Thomsen, head of the Bureau's Division of Marketing and Transportation Research and in general charge of the survey, has given the produce industry the benefit of his personal observations and opinions on some of the more perplexing pre-packaging questions.

Speaking before the American Institute of Cooperation, meeting at Purdue University, Mr. Thomsen first defined the term "pre-packaging"—in itself a matter of some controversy. It is, he said, "the packaging of fresh fruits and vegetables prior to retail display in unit quantities adapted to the needs of final consumers." He made it clear that, to his mind, pre-packaging includes the "hardware" produce items—includes, in fact, almost every fruit and vegetable.

Stressing that the "very tentative conclusions or observations" were merely his personal opinions, resulting from many contacts with persons in close touch with pre-packaging operations, Mr. Thomsen then set out to answer some of the larger questions. Following are excerpts which give the highlights of his remarks:

### Effects on volume of sales

"Pre-packaging has greatly stimulated sales of fresh fruits and vegetables by at least some stores. It has been difficult for me to believe some of the figures. Consumers seem to be 'knocked for a loop' by the imaginative appeal of attractively packaged and labeled fresh fruits and vegetables.

"Nevertheless, I think that we could very easily over-emphasize the effects of pre-packaging on sales. A large part of the increased trade following the introduction of pre-packaged merchandise in a store no doubt merely represents the switching of purchases from other stores handling bulk merchandise. To a retailer, anxious to bring more traffic into his store and to increase sales of his most profitable line, this switching is all to the good; but it doesn't necessarily mean greater sales for the produce trade as a whole. Moreover, to date pre-packaged merchandise generally has been sold at the same price as bulk produce, and consumer reaction to pre-packaged items priced higher than bulk

produce has not been adequately determined as yet.

"Nevertheless, the tremendous increase in volume of sales of fruits and vegetables generally over the last several decades shows that expenditures for these items are not necessarily fixed in amount, even in relation to the level of consumer income. Pre-packaging may be an important aid to producers of fresh produce in meeting the competition of frozen and other new foods, and may also help to expand somewhat the total demand for all fruits and vegetables.

### Effects on quality

"Nearly everyone seems to have assumed that merely enclosing fresh fruits and vegetables in a water-vapor-proof package would retard spoilage and improve quality, without stopping to analyze the factors relating to this question.

"The water-vaporproof film use in pre-packaging, by reducing evaporation, helps to prevent wilt. The low gas permeability of the wrapping film tends to reduce respiration, which is favorable under some circumstances. The effects of ethylene gas given off by too-ripe fruit on the remainder of the fruit in a package is confined to a relatively few pieces contained in the small consumer package. The protection afforded against bruising and other damage from handling by store personnel and customers is important.

"The assumption that pre-packaging necessarily improves the quality of the product, based on these considerations, has been bolstered by the fact that most of the pre-packaging operations to date have been in the consuming markets, where products have been packaged and placed on sale shortly thereafter, with a quick turnover. These conditions have tended to cover up the fact that under many circumstances which could be encountered under general commercial application of pre-packaging the quality of the products might be lowered rather than raised, and spoilage hastened rather than retarded. Much research needs to be done on these factors in the situation.

"Despite the uncertainties and the need for much more information on factors related to the quality of pre-packaged merchandise, there seem to be reasonable grounds for concluding that pre-packaging can be made to provide higher, more uniform quality of produce for consumers.

### Effects on costs

"On the debit side of the ledger are the costs of the packaging materials and labeling, the amortized first cost and upkeep of the machinery required, the cost of

labor involved in packaging, the cost of providing refrigeration, and the possible extra costs of supervision.

"On the credit side are the savings in kraft bags and other packaging materials now used in the retail stores, the value of the produce which otherwise would be spoiled or damaged in handling, and the possible savings in labor in the retail store. If the produce is packaged before shipment over long distances, an additional saving in the elimination of freight charges on waste trimmed from some of the products would have to be taken into account. Also, any individual distributor or shipper must take into account the effect on overhead costs and profits of changes in volume which may be attributed to pre-packaging.

"The Bureau has been making an intensive study of waste and spoilage in retail stores, for comparison with spoilage in the package stores. In general it may be said that if pre-packaged merchandising operations are carefully managed, and if refrigeration is used, spoilage can be reduced to a very low figure, although a good many practical operating problems are involved.

"Some statements have been made that the net cost of merchandising pre-packaged fresh fruits and vegetables is no greater than for marketing fresh produce. I have as yet seen no figures justifying such a statement for any operation. Perhaps, with full volume operations conducted under competitive conditions stimulating the adoption of all possible labor savings, pre-packaged produce may be placed in the hands of consumers at an average cost no greater than for bulk merchandise.

#### Packaging where?

"There has been much discussion on the question of whether pre-packaging should be done at the shipping point or in terminal markets. Some chain stores and wholesalers have been concerned over the possibility that they might make heavy capital expenditures for equipment, only to find a few years later that pre-packaging was being done by shippers. The latter, on the other hand, naturally would be loath to go into pre-packaging if they expected the operation eventually to be done at the consuming markets.

"From an economic standpoint, there are rather obvious advantages and disadvantages to both shipping point and terminal market pre-packaging. Pre-packaging done at the point of origin would result in savings in freight charges on dirt and waste removed from the product, would permit branding or 'product-differentiation' clear through to the ultimate consumer, and would encourage merchandising operations designed to bring premium prices for quality and enterprise back

to the grower or shipper. On the other hand, except in the relatively few cases where year-around operations are maintained at shipping points, the machinery for pre-packaging would stand idle a good part of the year and seasonal labor problems would be intensified. The problem of handling culls and lower-grade produce would be intensified also.

"Machine pre-packaging by service wholesalers and chain store organizations in the terminal markets would permit more economical use of machinery for packaging a wider variety of products throughout the year, free these merchandisers from the difficulties of obtaining adequate supplies of pre-packaged merchandise in different seasons and from different sections of the country, and eliminate the disadvantage of having to depend on a relatively smaller number of suppliers able to furnish pre-packaged goods.

"Physical considerations are equally if not more important. Pre-packaging at the point of origin, greatly lengthening the lapse of time between packaging and sale to final consumers, would intensify all of the problems connected with the effects of the wrapping films and types of closures on the quality of the produce, as previously discussed. New shipping containers and methods of loading would be called for.

#### How fast development?

"Haste would seem largely uncalled for. During the war many new uses for transparent wrapping films were developed. One might mention a few potential items not heretofore wrapped in such materials which could absorb the entire present output of the film-manufacturing industry. Capacity is being expanded

very rapidly, but there is little prospect that sufficient film can be produced within the next few years to satisfy even a large fraction of the potential demand.

"This means that the pre-packaging of fresh fruits and vegetables, constituting an enormous potential volume, must develop gradually regardless of its fundamental merits or demerits. This will permit a more rational and carefully planned development than otherwise would be likely to occur. The film manufacturers themselves seem to realize this fully, and tend to discourage leapfrog plunges into pre-packaging operations. Sufficient materials will be available for experimental and pilot commercial operations, which are greatly needed as a guide to pre-packaging on a volume basis.

#### The eventual pattern of operations

"Together with freezing, air transport, by-product utilization and many other modern developments in



F. L. THOMSEN

the marketing of agricultural perishables, pre-packaging will have a part in making the produce marketing system of 1956 a quite different institution than that with which we are now familiar. After pre-packaging operations have shaken down into a more or less established competitive pattern, it is likely that some items will be pre-packaged and others sold in bulk. Some of the pre-packaging probably will be done at the point of origin, but a considerable volume will be done at

the terminal markets. It is unlikely that in the long run much will be done in individual retail stores.

"The operations of service wholesalers, equipped for pre-packaging and other operations, as opposed to the more old-fashioned types of dealers in the wholesale markets, will tend to expand. A greater use of brands and advertising will tend to concentrate produce operations in fewer hands all the way from producer to retailer or consumer."

## The challenge of pre-packaging

In terms of attention given to it, the biggest thing to hit the packaging industry since the development of the cutting and creasing press is the pre-packaging of fresh fruits and vegetables. More has been written on the subject; more has been spoken; more study has been given by more different agencies to this than to any other subject in the history of American merchandising. This is natural enough since the potentialities are huge, to put it mildly. If only half the average pre-war consumption of fresh fruits and vegetables were to be packaged in units partially made of paperboard, our whole supply and demand situation would be completely revolutionized; but experience has shown that pre-packing increases the demand for these products to such an extent that no accurate indication of the potential market can even be guessed.

### Energetic confusion

Until fairly recently there was no serious effort made to coordinate the tremendous amount of energy going into this subject. Everybody was trying to get in the act, and most aspirants wanted to do a solo turn. There were growers, marketers, commission houses, retail groceries, package manufacturers, state and federal institutions, machinery manufacturers, refrigeration manufacturers, and transportation agencies all carrying on studies; trying to find out all they could about pre-packaging with very little regard for what the other people were doing. The results achieved by practically all of these studies were valuable, but a great deal of wasted effort was bound to result. Even the most integrated of all the tests, the famous "Columbus Experiment," has left a great deal of unexplored area, and of necessity does not include all the possible angles to the subjects which are being covered. Perhaps no great harm would have come from the haphazard series of tests, the subject being so big and so fertile, but unfortunately the results of a lot of them were published prematurely and the whole pre-packaged produce program is now in danger of being oversold, especially to the consumer.

Of course pre-packaging is a matter of huge importance to a wide number of different businesses, but before we decide that pre-packaging will reduce the national debt and settle the Polish Boundary question,

it is well to consider the fundamental factors which confront us.

First and foremost, pre-packaging is with us today. It is not a wild dream in some vegetable farmer's eye. There is hardly a group of growers or marketers which has not at least reached the stage of talking about pre-packaging. As far as the customer demand goes, the situation is all set.

The paradox which goes with the above statement is equally clear. As far as the mass of American consumers goes, pre-packaging is not an accomplished fact, and will not be for several years. The folding paper box industry cannot supply the necessary packages (and the big majority of the industry would not know what to supply even if it could) while the situation of the other package manufacturers is just as bad or possibly worse. And the manufacturers of machinery for packaging, wrapping, refrigeration, transportation and all the other essentials of the program are equally unequipped to take care of the immediate demand for their services.

Another fundamental fact that must be faced is that nobody really knows a lot about pre-packaging. The necessary fields of research fall into three classes: scientific, economic and merchandising. The scientific studies which are going on in agriculture colleges, experimental stations, private laboratories and other places in the country have progressed enough to permit the drawing of only one conclusion, and that is that the field is a huge one which will take a great deal more study to complete.

In the first place, it is easy to say "fruits and vegetables," but every fruit and every vegetable has an unpleasant habit of reacting differently to various conditions; and the type of packaging and treatment which will deliver sweet corn to the consumer in perfect condition will do more harm than good when applied to carrots. As if that were not complicated enough, it has been shown that different varieties of the same kind of vegetable may react in widely varying ways. In general, the scientific research necessary involves the amount of treatment which is necessary and desirable before packaging; the condition of the product during its trip from the fields to the table (especially regarding refrigeration); the necessity for encouraging or



inhibiting the issuance of water vapor, CO<sub>2</sub>, ethylene and other gases; and the effect of packaging on the nutritive value of the product. When the scientists have the answers to all of these questions, we will be ready to begin.

But since pre-packaged produce has got to sell, the economic questions are equally as important, and at the moment less is known about them than about the scientific factors. At what point in the cycle from the farm to the table is it economically desirable to package the produce? Does the elimination of waste in retail stores (which pre-packaging unquestionably encourages) overcome the additional waste in the packaging center? Just how much premium, if any, will the consumer pay for packaged goods? Will the appearance of inferior merchandise in packages create a resistance toward their use? These questions and a lot more have got to be solved before the pre-packaging industry can become established.

After the scientist and accountants have had their say, the merchandising people must take over. It must be determined whether the vast increase in consumption of packaged goods which has been shown in all experiments to date is due to the novelty or to a real economic utility. It must be determined what type of package the consumer likes. Confusion in the minds of consumers between the pre-packed and refrigerated fresh produce on the one hand, and frozen fruits and vegetables on the other hand must be resolved. All the questions which are inherent to any new merchandising venture are present here, and a lot of extra ones too.

When all the above problems are licked; when we can deliver all the necessary paperboard; when the manufacturers of transparent film and other packaging material have adequate supplies; when automatic packaging machinery is available for all the desired types of packages; when adequate refrigeration facilities are available all along the line; and when the railroad and air lines can take care of the increased volume of freight, then pre-packaging will be a part of American life and its effect will be tremendous indeed.

### The high stakes

It will, we hope, increase the permanent volume of fresh produce consumed in America, with the resulting increase in the income of farmers. It will result in better nutrition for the average American. It will create a permanent demand for a much greater volume of packaging material than has ever been known before. And it may very possibly effect a small revolution in our transportation system. But let us caution you

again that these are all the things that will happen when all the problems are licked. That will not be tomorrow.

From the point of view of the folding paper box industry, the problems and headaches of pre-packaging are far outweighed by its great promises. Although, as we have stated above, nobody knows yet which packages are best for fresh produce, it is fairly apparent that some amount of paperboard will be involved. If we only sold U-boards, the tonnage would still be tremendous. If we can sell complete finished boxes, the volume will be out of this world. (At least out of the present capacity of the industry.) Few folding box manufacturers seem to have realized the tremendous stake which our industry has in this program.

On the other hand, hasty action may turn out to be worse than none at all. If the experimental packages which are being tried out all over the country today

turn out to be unsatisfactory the whole cause of pre-packaging will be set back because one of the great advantages of pre-packaging will operate in reverse. The definite identification in the minds of the consumer of high quality in merchandise with its producer and with its package is one of the primary causes for the growth of the packaging industry in America. Let low qual-

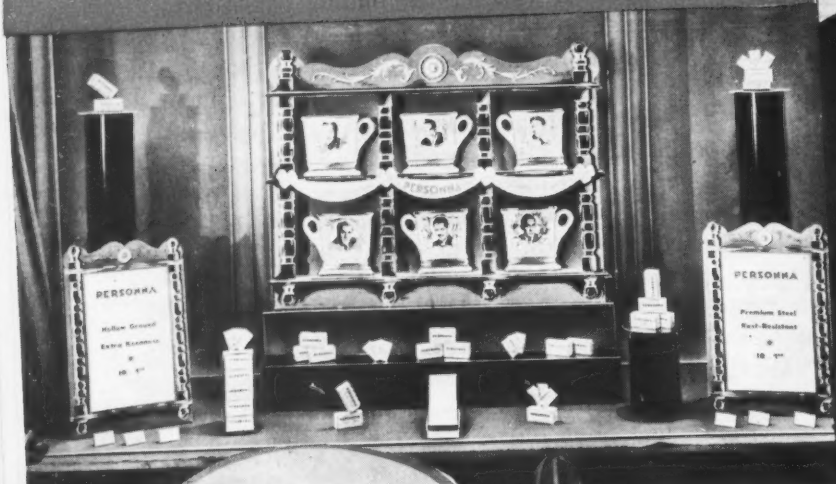
ity goods come to market in improper packages, and the process will work exactly the same way except that the consumer will get mad and refuse to buy any packaged produce.

The Folding Paper Box Assn. is taking an active part in the advancement of pre-packaging. Both the Research Committee and the Public Relations Committee are interested, and are keeping in touch as well as possible with the multitude of developments taking place in the field.

The Research Committee's announced policy has been to offer encouragement and assistance to all experiments which we might help along and to perform original research on the pre-packaging problem when such is indicated.

One of the most encouraging events in the pre-packaging field has been the recent organization of a group of horticulturists to coordinate the fundamental scientific research being done throughout the country. This is a necessary step in itself, and is especially encouraging as it foreshadows more concerted effort on the part of packaging, material, machinery and equipment manufacturers as well as merchandising agencies. When some kind of order has been instituted in the various programs, a big step toward the real achievement of pre-packaging will be accomplished.

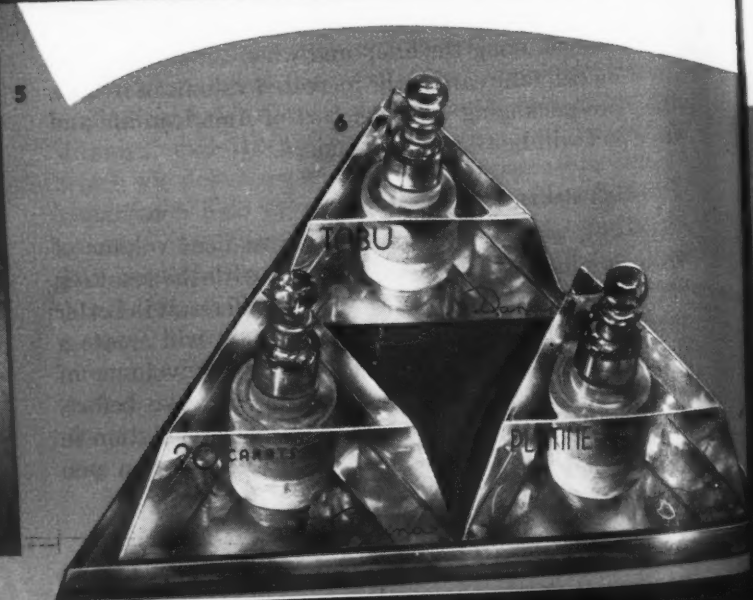
*This remarkably clear and concise analysis of the opportunities and problems which produce pre-packaging poses for the entire packaging field was contained in a recent bulletin issued to members of the Folding Paper Box Assn. of America. Although not intended for publication, it is reprinted here with the permission of the F.P.B.A.*



TOP OUTFITS & TOP HANDS  
INSIST ON THE BEST.  
IN VACCINES THE BEST IS  
**CUTTER**



# DISPLAY GALLERY





1 Counter and window displays of Imra—an odorless hair-removing cream—achieve greater eye-appeal by the addition of these small easel-mounted cards promoting the slogan “Pretty Legs Begin with Imra.” The neat display of legs is tied to the product reproduced in the lower left-hand corner by additional copy stressing the advantages of the cream. Printing, Offset Reproductions Inc., New York.

2 Personna Blade Co.’s recently released three-dimensional “mug” window display is in the shape of a Victorian Barber’s shelf complete with curlycuts, gilded knobs and recessed shelves to hold six die-cut shaving mugs. Each mug bears the face and name of a famous PERSONNALity, with the streamer reading “America’s most famous mugs use Personna for faster, smoother shaves.” Frame is in deep gray, gold and black. Mugs are lithographed in eight colors. Printing, A. D. Steinbach & Sons, New Haven, Conn. Finishing, I. Fenster & Sons, Inc., Brooklyn, N. Y.

3 Using full-color, this two-dimensional display featuring both Levi’s and Blacklegol, a product of the Cutter Laboratories, Berkeley, Calif., includes the figure of a cowboy in the foreground holding an actual Blacklegol carton and wearing blue levi’s made of real fabric. In the background, another cowboy is using the product to vaccinate cattle. Display, Velvetone Co., San Francisco. Designer, Stan Stoecker, San Francisco.

4 Colorful, small display cards which slip right over the cap of the bottle and rest on the shoulder are being used by Hinze Ambrosia, Inc., to call attention to its line of six toiletries either in the store window or on the counter. At the bottom of the card a tab is die cut to the right size for the flap to slip over the cap of the smaller size. For the larger sizes a further perforation enlarges the opening to fit. Cards printed by The Louvaine Press, Inc., New York.

5 Chicopee Sales Corp., New York, packages its sleeve-wrapped lengths of cheesecloths in this handy folding carton which easily sets up into a counter display dispenser. The well-known trade name, Chix, as well as the

trademark are prominent on both the individual packets and the carton. A die-cut portion in the front of the display facilitates self-service on the counter or shelf. Carrying out the self-service idea still further, a small circle is left blank for inserting price. Carton, Edwin J. Schoettle, Co., Philadelphia, Pa.

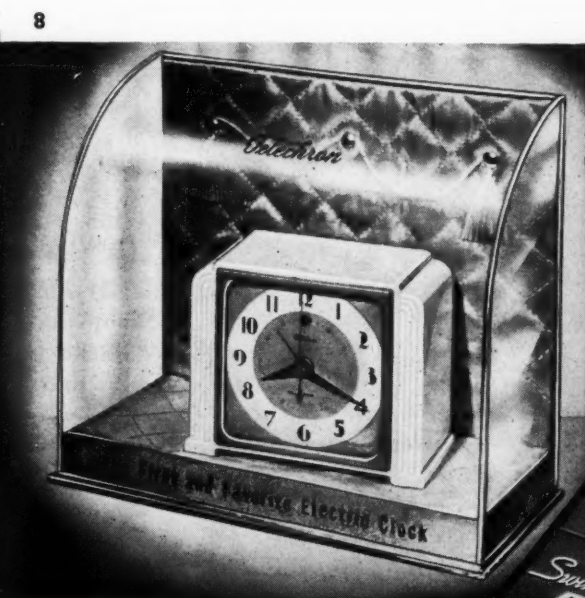
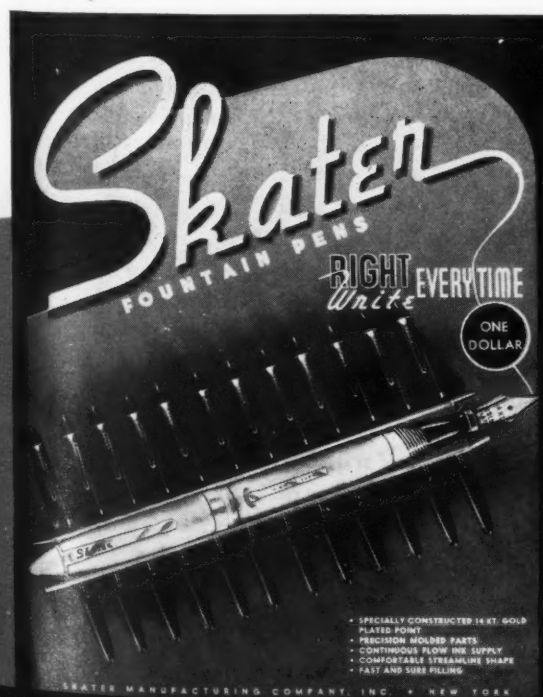
6 Three sample bottles of Dana perfumes—Tabu, 20 Carats, Platine—are locked into this tamperproof acrylic counter tester. Utilizing a diamond shape motif, the triangular cuts of the display catch and reflect light making a brilliant piece for the perfume counter. Display, Charles Victor Co., New York.

7 A three-color, varnished easel-mounted display for Skater fountain pens manufactured by the Skater Mfg. Co., New York, features a mammoth pen die cut from paperboard and perforated to hold one dozen of the actual pens. The 12 pens plus the display are sold as a unit to the retailer who sets it up on his counter for self-selling. Display, Merit Display Card Co., New York.

8 Telechron introduces a new transparent display for its electric clocks which has a base made of heavy paperboard covered with a gold foil and the backboard and platform covered with quilted blue satin. A gold tassel decoration is fastened to the backboard with gold buttons. The acetate hood, 0.015 gauge, is printed in maroon. The display is also suggested for use as a gift package. Display, Shaw Paper Box Co. and Shaw-Randall Co., Pawtucket, R. I. Material, Vuepak, Monsanto Chemical Co., Springfield, Mass.

9 Speed Products Co., Inc., Long Island City, N. Y., uses a cardboard carton holding 10 consumer size packages of Swingline staples as a self-service counter display. The carton features the eye-catching bunny made famous in recent Speed advertising and follows the red, white and blue color scheme of the Sherlock Holmes rabbit that recently appeared in the Saturday Evening Post. Designer, Paul Smallen, New York. Carton, John F. Droge Co., Inc., New York.

(Page 137)





# Shrink seals . . . of tough vinyl plastics

**P**lastic sealing bands and caps for bottled products, of a type of plastic new in this field, have been developed by the General Electric Co., and introduced on bottles of the company's own chemical "Dri-Film," an organosilicon product. The company will make the seals available for general packaging use.

Certain advantages inherent in the vinyl plastic are claimed for these seals. They are extremely tough and durable, both wet and dry, and highly resistant to acids and alkalis as well as to water-vapor permeation. They are unaffected by boiling water or by sterilizing techniques.

They may be shipped and stored dry indefinitely, without any loss of strength or elasticity, in contrast to the cellulose type which must be kept in liquid until used. It is also claimed that they will not become dry and brittle at any time after application to the bottle.

Immediately prior to use, the new-type seals are soaked from 2 to 4 hrs. in a special dilater solution which expands them to half again their normal size. While dilated they are easily slipped over the bottle top and allowed to dry naturally. When perfectly dry, they will have shrunk to smaller than their normal size, forming a very tight seal. Since the dilater solution is nonaqueous, the shrinking action is said to be unaffected by humidity. The shrinking action can be accelerated by mild application of heat or by forced ventilation. If the part over which the cap or sleeve is applied is warm, shrinkage will occur rapidly.

The material is extruded in the form of a flattened

*The new shrink-on sealing sleeves, of a vinyl composition, are extremely tough and durable and virtually impermeable to water-vapor. They are used by G.E. to seal bottles of Dri-Film, a corrosive and volatile chemical.*

1



tube, which may have various diameters and thicknesses and any of a variety of colors, according to need. The material may be supplied as a tube, to be cut off in lengths desired, or it may be pre-cut in uniform lengths. Caps are shipped pre-cut and heat-sealed at one end ready to apply.

Depending on the length of the piece of tubing and its placement on the bottle top, it may form either a conventional sleeve around the side of the closure and the bottle neck, or in cap form it may be a complete cover for the cork, closure or glass stopper. These various types of seals are shown in Fig. 2.

## Physical and chemical qualities

G.E.'s tests indicate that the new vinyl seals have less than 1% of the water-vapor permeability shown by the cellulose type now generally used.

With their high resistance to acids and alkalis, they are expected to be particularly useful as leakproof, moistureproof and tamperproof seals for chemicals and pharmaceuticals where this type of sealing band could not previously be employed. It is also suggested that, with their ease of application, the sleeves and caps will be useful in the chemical laboratory to reseal bottles of volatile chemicals after each use. They may replace the common plaster, cloth, string and wax preparation (Fig. 3) now used to seal glass-stoppered bottles containing corrosive chemicals or those from which air or moisture must be excluded.

Their toughness suggests that the vinyl bands may be more difficult to remove, but according to G.E. a knife or any sharp instrument will start a tear which will permit stripping off the entire seal.

The new sealing caps and sleeves were originally conceived by G.E. as protection for the ends of metal tubing, threads and precision-machined surfaces, particularly for parts used in the air-conditioning and refrigeration field which must be kept perfectly free of contamination. They were announced for this purpose a year ago. The new application to consumer packaging follows a year of experiment in the laboratories of G.E.'s Plastics Division.

## Technical data

Technical data supplied by the G.E. laboratories show that the tensile strength of the seal material, dry, is 2,000 to 4,000 lbs. per sq. in. If accelerated drying is required, the seals will withstand conventional high-temperature baking cycles up to two hours at 300 deg. F. without suffering any serious reduction in strength or moisture resistance, and without showing any tendency to fuse to the material with which they are in contact.

Tests of moisture resistance have shown that even

Seals can be either a sleeve or a full cap. Because material is unaffected by most acids and alkalis, it is suggested for laboratories to reseal bottles after each use.



when the interior of a sealed vessel contains silica gel or other hygroscopic agents, "there is negligible passage of water vapor through the cap or sleeve during the time protection is required."

Sealing caps and sleeves are available in black, white, yellow, green, blue, red, orange, transparent or special colors. Investigations are being conducted to determine the best method of printing. Cost is expected to be comparable to that of existing cellulose bands.

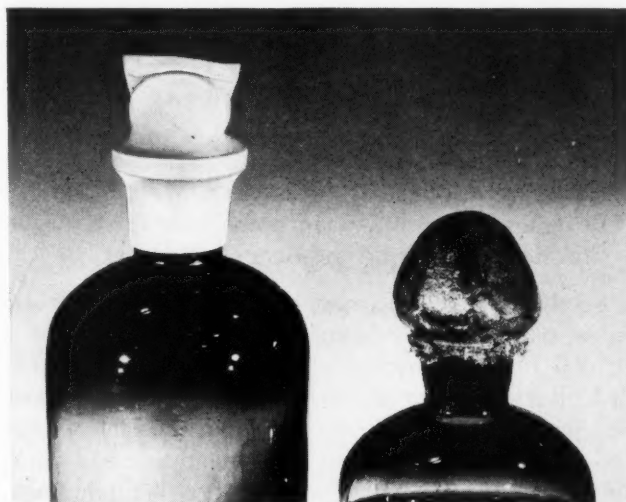
#### Suggestions for use

It is recommended that the container in which the sealing caps and sleeves are soaked be equipped with a tight cover to prevent undue evaporation of the dilater, and a wire screen to facilitate removal of the seals. Tests have shown, according to G.E., that the caps and sleeves after being swollen in the dilater will not shrink when left in the saturated vapors. This permits the seals to be stored in the upper part of the container out of contact with the dilater and ready for instant use.

If a screen is used to remove the caps and sleeves, it is recommended that they be shaken and allowed to drain for a minute or two before applying. This will minimize direct contact by the hands with the dilater solution.

The choice of the correct-sized cap or sleeve will depend on several factors. On a regular bottling line where a neck and closure of constant diameter are being covered, the ease with which the cap or sleeve can be slipped over and the time required to have it shrink tight must be considered. Standard sizes are listed by G.E. according to the outside diameter of the closure and neck for which they are recommended. Upon swelling in the dilater solution, the caps and sleeves swell approximately 30 to 50% over normal diameter and can easily be applied.

Due to this large amount of dilation, the caps and



3

Cap seal over a glass stopper is contrasted with elaborate plaster-cloth-wax-string seal normally used for this purpose on laboratory bottles of highly corrosive or instable chemicals. Seal can be cut off a dry tube with scissors, crimped at one end to form cap, which shrinks tightly in place after soaking in dilater solution.

sleeves will hang loosely for a few minutes before shrinking to a tight fit. If, in this initial period, a tighter fit is desired, a smaller size cap or sleeve should be used. In this case, the ease with which the cap or sleeve is applied is reduced, but a tight fit is obtained more rapidly. In any case, the greater part of the shrinkage occurs in the first half hour, and shrinkage is complete in 1 to 2 hours.

Investigations are being made to determine the handling qualities of the vinyl sealing bands on the new automatic, high-speed banding machines now coming into use on distillery bottling lines, designed for the use of cellulose bands.



# Packaging Institute program

...in new seminar form

The eighth annual meeting of the Packaging Institute, to be held Nov. 25-26 at the Hotel Stevens, Chicago, will be organized on a seminar basis, with the membership divided into twelve groups according to product interest. All sessions will be open to both members and non-members.

Each seminar will be presided over by a manufacturer of the packaged item in that product group, and the speakers' panel for each will include the machinery manufacturer and the suppliers of containers, coatings, adhesives, wraps and labels.

According to Mason Rogers, of Dewey & Almy Chemical Co., program chairman, the groupings will be:

- Drugs and Pharmaceuticals
- Cosmetics and Personal Accessories
- Rubber Goods
- Tobacco and Related Products
- Candy and Confectionery
- Soap
- Food Products
- Crackers and Baked Goods
- Hardware Appliances, Automotive, Marine Supplies
- Beverages
- Chemicals, Petroleum and Related Products

Foods, however, because of widespread interest in recent packaging developments, will be a subject for a general Institute meeting, to be presided over by Dr. L. V. Burton, editor of *Food Industries*. Appearing on this program will be Frank Lunding, president of the Jewel Tea Co., speaking on "Merchandising and Packaging Fresh Fruits and Vegetables"; William de Back, of Food Machinery Corp., "High Speed Packaging of Fresh and Frozen Foods"; H. A. Bullis, president of General Mills Corp., "The Food Processing Industry," A. B. Brackett, Birds-Eye Snider Div., General Foods Corp., "Packaging the Frozen Foods of the Future."

Prior to the starting of the seminar program, which apparently will consist of a number of concurrent meetings, there will be two general membership sessions on the afternoon of Nov. 25.

The first general session will present speakers selected for their familiarity with labor, production, raw materials, government relations and merchandising questions. Presiding over this meeting will be Henry Stevens, vice-president of Benj. C. Betner Co. Labor relations will be discussed by Rowland Allen, of Ayer & Co., Indianapolis. "The Government's Part in Business" will be undertaken by Lowell Mason, Federal Trade Commission, while merchandising will be discussed by M. M. Zimmerman, publisher of *Super-Market Merchandising*, and the raw materials situation by Paul Weber, market analyst of Hercules Powder Co.

Another featured speaker on this program will be Dr. G. L. Riddell, Director of Research, Printing and Allied Trades Research Assn., London.

The second general session will be presided over by George A. Mohlman, president of Package Machinery Co. On this program will appear Dr. Homer Malsstrom, of Kimberly-Clark Corp., whose subject has not been announced, and Dr. Spencer A. Larsen, of Wayne University, who will speak on "Packaging for Air Cargo Shipment." The newest developments in heavy packing and shipping will be discussed by Frank Weber, of International Harvester Co., and "Factors Contributing to the Package Design of Tomorrow" will be the subject for Lester Beall, New York industrial designer.

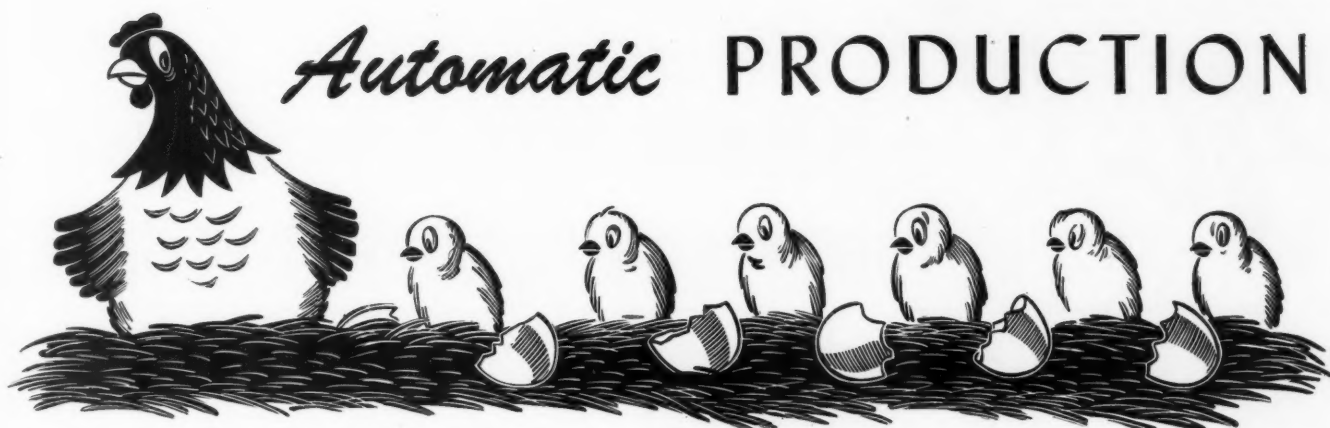
For several years, one of the product groups—Drugs and Pharmaceuticals—has been holding its own specialized discussions on packaging problems common to the field. C. O. Kendall, of E. R. Squibb & Sons, will be chairman of this seminar this year. Chairman Kendall's program for this event includes discussions on labeling round cans and ampules, cleaning bottles and ampules, and printings of ampules—the inks employed and newest techniques of application. On Mr. Kendall's committee are T. R. Aalton, of Heyden Chemical Corp.; M. R. Brenner, of Wyeth, Inc.; W. O. Brewer, of Calco Chemical Co. and a director of the Institute; H. E. Fortiner, of Ciba Pharmaceutical Products, Inc.; J. H. Maget, of Merck & Co., also a member of the Institute's board, and H. E. Nack, of Sharp & Dohme, Inc.

Heading the Cosmetics and Personal Accessories discussion will be M. M. Ricketts, of William R. Warner & Co., Inc. Soap discussions will be led by J. J. Guiney, of Lever Bros. Co.; Candy and Confectionery by G. E. Truax, of Peter Cailler Kohler Swiss Chocolate Co., Inc.; Crackers and Baked Goods by W. B. Van Emburgh, of Weston Biscuit Co.; Tobacco and Related Products by R. D. Linthicum, of Brown & Williamson Tobacco Corp.; Hardware, Appliances, Automotive and Marine Supplies by H. Biersack, of Evinrude Motors; Textiles and Apparel by Stanley Martinus, of Pacific Mills; Beverages by Dr. R. I. Claassen, of Hiram Walker & Sons, Inc.; Rubber Goods, by L. H. Rohde, of the West Co.; Chemical, Petroleum and Allied Products, H. J. Saladin, Standard Oil Co., Ind.

Three standing committees of the Institute, the Technical Committee, the Advisory Council and the Committee on Standards and Practices will hold luncheon meetings on Tuesday.

A feature of the opening day will be an informal "bruncheon" reception. The annual banquet will be addressed by Harry P. Cain, Mayor of Tacoma, Wash., a United States Senate nominee from that state.





Our production is completely automatic. We produce small, round, square, oval and oblong setup boxes completely by machine. Matter of fact, many of our machines are specially built and designed by us to do our own work.

Automatic production involves many advantages for the mass packagers of such items as cosmetics, drugs, pills, tablets, etc. It means that they can get the quantity production they require—packages in the millions, completely uniform from the first to the millionth. It means that they can get them speedily, keep pace with their own rapid production and merchandising. It means that they get them economically, as well, because automatic production is the least expensive way and our mass production economies are passed on to our customers.

Additionally, we are centrally located to all forms of transportation, offering another time-saving advantage in shipping.

Send for samples.

## **F. N. BURT COMPANY, INC.**

500-540 Seneca Street, Buffalo, N. Y.

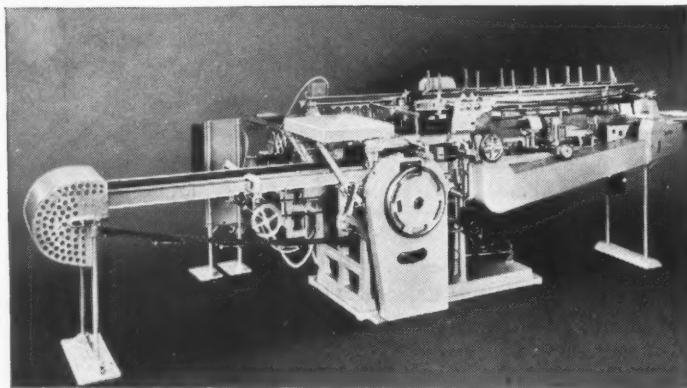
New York City • Philadelphia • Boston • St. Louis • Atlanta • Chicago • Cleveland  
Cincinnati • Los Angeles • New Orleans • Memphis • Minneapolis • Kansas City  
San Francisco, California • Newark, New Jersey

### **CANADIAN DIVISION:**

Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

*New*

## A MACHINE DEVELOPED ESPECIALLY FOR WRAPPING TEXTILE PRODUCTS



New Model FA-2T

Now a wide variety of textile products can be given attractive sales-winning wrapping at high speed and low cost! The machine that makes this possible is our Model FA-2T—a development of the famous Model FA, the most widely used wrapping machine in the package-goods field.

Practically any type of wrapping material can be used, including paper, glassine, cellophane, acetate and waxed paper. The material may be plain or printed. An electric eye device locates the printed design accurately. The FA-2T can also be equipped with a labeling attachment either for an inside or outside label . . . It can readily be seen that this machine offers extremely wide scope in designing a distinctive package for your product.

### QUICKLY ADJUSTABLE FOR A WIDE RANGE OF SIZES

A single machine may be used for a variety of products, because it can be quickly adjusted for a different size by hand-wheel adjustments and the changing of a few parts.

The product is placed on a plain cardboard, and the machine applies the wrapping material, sealing the seam and end-folds *under the bottom of the package*. Folds are made over blades rather than over the product, thereby allowing for irregularities and variations.

The machine is equipped with both electric heaters and glue daubers. Its speed is 45 packages per minute, with one operator in attendance.

#### SEND US YOUR PRODUCT

We suggest that you get in touch with our nearest office regarding this new and important development in textile packaging, sending along a sample of your product so that we may show you how the FA-2T would wrap it.

#### PACKAGE MACHINERY COMPANY Springfield 7, Massachusetts

30 Church St., New York 7 • 111 W. Washington St., Chicago 2  
101 W. Prospect Ave., Cleveland 15 • 849 Marietta St., N. W., Atlanta 3  
443 S. San Pedro St., Los Angeles 13 • 320 Market St., San Francisco 11  
18 Dickens Ave., Toronto 8

## PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

# Packaging

## TECHNICAL SECTION

Charles A. Southwick Jr. • Technical Editor

### The kinetics of package life\*

by C. R. Oswin

An estimate of the useful life of a hygroscopic package is essential for the best use of "moistureproof" wrappings, and this paper presents a simplified form of calculation. Thin, flexible wrappings are never completely impervious to water vapor, but the rate of transpiration through most of them is known, so that it is possible to calculate how long any hygroscopic package can be exposed to the atmosphere before excessive gains or losses of moisture spoil the contents. This is not, of course, the only factor which determines package life, nor does it apply to all cases, but it is the commonest cause of spoilage.

The present method of calculating the life of a package<sup>1</sup> is long and tedious, in spite of several simplifying assumptions which entail small errors. There is, however, a natural variation between similar packages, so that extreme accuracy of prediction is not necessary; it is usual to choose the basic data for calculation so that the predicted life is shorter than that of any actual package in a group—in other words, to imply a "safety factor."

The fundamental assumption of all "permeability" calculations is that the rate of transpiration of water vapor through a barrier is proportional to the vapor pressure difference across the barrier, and inversely proportional to the resistance.<sup>2</sup> This is analogous to Ohm's law, and may be expressed for packages by:

$$d\alpha/dt = (p/R)[(H - H')/100] \quad (1)$$

\* This article appeared originally in the *British Journal of the Society of the Chemical Industry*, and is reprinted here by permission of the *Journal* and *British Cellophane, Ltd.*

<sup>1</sup> Halladay, *Paper Trade J.*, 1942, 115, TAPPI Sect., 153. Oswin, *J.S.C.I.*, 1943, 62, 45.

<sup>2</sup> Oswin, *Chem. and Ind.*, 1944, 429.

where  $\alpha$  is the moisture content of the packed material (calculated as a percentage of the dry weight) after  $t$  days of exposure.  $p$  is the aqueous vapor pressure of water in millibars<sup>3</sup> at the temperature of storage;  $H$  and  $H'$  are the relative humidities of the external and internal atmospheres respectively, and  $R$  is the resistance of the packet to penetration by water vapor. In the above terms  $R$  is measured by the vapor pressure gradient, in mbs., which will cause a daily increase in the moisture content of the packed materials equivalent to 1% of their dry weight. This is a generalization of the MLT value of Schwartz,<sup>4</sup> and it has the advantage of being independent of any arbitrary conditions of storage.

The assessment of package life requires an integration of equation (1), but the usual sigmoid isotherm connecting  $H$  and  $\alpha$  is of such a complicated exponential form that no general solution has yet been offered; instead, the calculation is reduced to the summation of a series of finite increments, and the accuracy of the result depends on the frequency of the intervals selected.

Integration could be simplified by assuming that

$$(\alpha_H - \alpha)/(H - H') = \mu \quad (2)$$

where  $\alpha_H$  and  $\alpha$  are the moisture contents corresponding to relative humidities of  $H$  and  $H'$ . This assumption, which implies a straight-line isotherm, is quite unjustified in theory, but in practice the small error which it introduces can easily be tolerated. The error increases as  $H'$  approaches  $H$ , but this never occurs, because the calculations always concern materials which

<sup>3</sup> "Averages of Humidity for the British Isles," H.M.S.O., 1938.

<sup>4</sup> Schwartz, *Food Ind.*, 1943, 15, 68.

#### SUMMARY

The rate of change of the moisture content of goods packed in water-vapor-resistant wrappings may be expressed without serious error by the equation  $\tau = 69.3R\mu/p$ , where  $\tau$  is the time in days required for the moisture content of packed materials to change from the initial value to a value which is the mean of the initial and equilibrium values.  $R$  is the package resistance (the mbs. aqueous vapor pressure gradient required to change the moisture content by 1% of the dry weight of the contents in one day),  $\mu$  is a constant characteristic of the material, and  $p$  is the aqueous vapor pressure in mbs. at

the storage temperature. Measurements show that this equation incorporates a safety factor of about 10 at 20 deg. C., or 2.5 at 35 deg. C., when  $R$  is based on laboratory measurements made at 40 deg. C.

The resistance to aqueous penetration of regenerated cellulose wrappings varies approximately as the inverse square of the saturation vapor pressure of water at the temperature of measurement. This gives a "half-life" formula (J.S.C.I., 1945, 64, 67)  $\tau = 69.3 R\mu p_m^2/p^3$  for hygroscopic packages. The numerator can be regarded as a package efficiency unit.



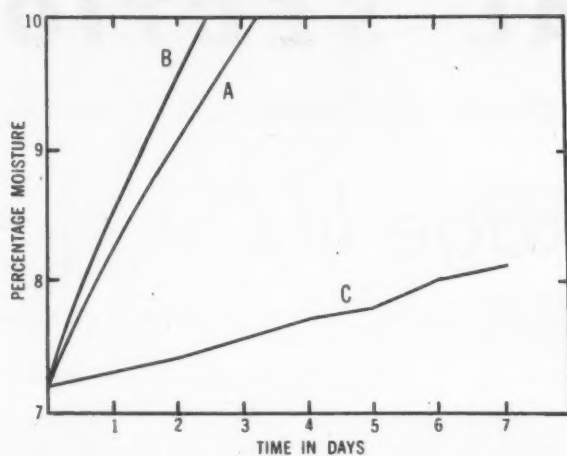


FIG. 1

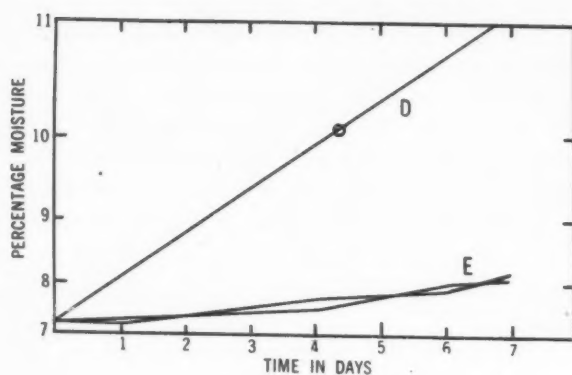


FIG. 2

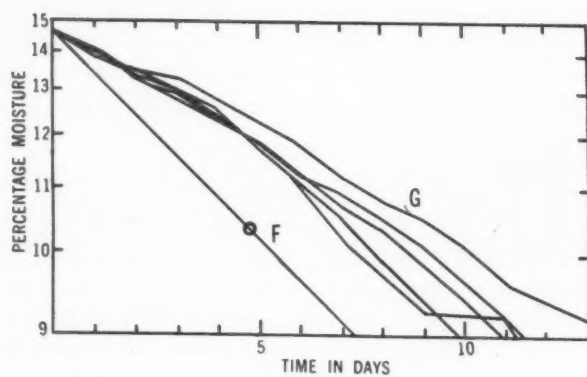


FIG. 3

spoil before nearing equilibrium with the external atmosphere, otherwise there would be no need to use a moistureproof wrapper. Fig. 1 shows how small the error is, compared with the factor of safety implicit in the calculations. Curve A is a portion of the time vs. moisture content graph for a 1/2-lb. packet of biscuits, as calculated by the old method using frequent intervals. B is a similar curve based on equation (2), and C is a plot of the points observed experimentally. The conditions chosen are such that  $\alpha$  is about half  $\alpha_H$ , and the divergence between A and B is at a maximum. It will be seen that the difference between A and B is of a smaller order than that between B and C. For rough

calculations it is sufficient to measure  $\alpha$  at about 70% to 80% relative humidity and to assume that  $\mu = \alpha/H$ . Similarly, the effects of small temperature changes may be ignored, although there is a thermal displacement of the isotherm.

When equation (2) is substituted in (1), the equation becomes:

$$d\alpha/dt = (p/100R\mu)(\alpha_H - \alpha) \quad (3)$$

which is a form of the "unimolecular" equation, integrating to

$$t = (100R\mu/p) \log_e [\alpha_H/(\alpha_H - \alpha)] \quad (4)$$

$\alpha_H$  being the moisture content of the goods when they are in equilibrium with the storage atmosphere. This gives a characteristic "half-life" formula:

$$\tau = 69.3R\mu/p \quad (5)$$

where  $\tau$  is the time taken for the moisture content to change from its initial value to a value halfway between the initial and the final, or equilibrium, value  $\alpha_H$ . This time is independent of values of  $\alpha$  and  $\alpha_H$ .

According to equation (4), the time vs. moisture content curve is logarithmic, and can be plotted as a straight line on semi-logarithmic graph paper if the logarithmic ordinates are marked to correspond with values of  $(\alpha_H - \alpha)$ . This straight line can be drawn through the two points defined by the initial values and by the "half-life" co-ordinates: it is easy then to read off the life which corresponds to the value of  $\alpha$  at which the material is known to deteriorate.

The complete calculation may be illustrated by reference to a 1/2-lb. packet of hygroscopic biscuits, which are to be stored in an atmosphere of 75% R.H. at 23.8 deg. C. The moistureproof wrapping has an exposed area of 0.0444 sq. m., of which the seals and closures occupy 0.0063 sq. m. Laboratory measurements under standard testing conditions<sup>5</sup> show that the plain and sealed areas of the wrapper have "resistances to aqueous penetration"<sup>2</sup> of 0.25 and 0.15 mb./g./m.<sup>2</sup>/day, respectively. The resistances appropriate to the plain and sealed areas may be combined in parallel:  $1/r = 0.0381/0.25 + 0.0063/0.15$ , whence  $r = 5.14$  mb./g./day. The fresh packet contains 227 g. of biscuits having an initial moisture content of 7.2%; hence the dry weight of contents is 212 g. and, from the definition following equation (1),  $R = 5.14 \times 212/100 = 10.9$  mb./cent./day. Absorption measurements showed  $\mu = 0.174$ , so that substitution of the appropriate values in equation (5) gives  $\tau = 69.3 \times 10.9 \times 0.174/29.65 = 4.43$  days. The initial ( $\alpha_0$ ) and equilibrium ( $\alpha_H$ ) moisture contents are found to be 7.2 and 13.0% respectively, so that the "half-life" value is 10.1%. The results are shown plotted in Fig. 2; the intercepts representing 1, 2, 3 along the logarithmic axis were marked 12.0%, 11.0%, 10.0% moisture, and so on. It was convenient to invert the graph paper, so as to have ascending ordinates of  $\alpha$ . D is the line drawn through the calculated half-life co-ordinates,

<sup>5</sup> Charch and Scroggie, *Paper Trade J.*, 1935, 401, 201.

and E is a group of three curves which were found by experiment under the conditions specified.

The method can be applied equally well to materials which lose moisture in normal storage conditions. For example, a packet of 10 cigarettes, wrapped in moistureproof cellulose film, was estimated to have a resistance of 16.7 mb/cent/day. It was impossible in this case to ignore the weight of the cardboard carton in comparison with the weight of the contents, so the entire contents—carton, tobacco, cigarette paper, and cork tips—were treated as one unit, and all values of  $\alpha$  were expressed as total moisture per hundred grams of total dry weight. On this basis,  $\mu$  was 0.234,  $\alpha_0$  was 14.6%, and  $\alpha_H$  6.0%. The packets were stored at 45% R.H. and 35 deg. C., and substitution of the appropriate values in equation (5) gave  $\tau = 4.83$  days. The predicted curve (F) is shown in Fig. 3, in comparison with measurements on five commercial packets (G). In this case it was not necessary to invert the graph paper, the ordinates 1, 2, 3 being altered to 7.0%, 8.0%, 9.0% moisture, and so on.

When similar packets were stored at 23.8 deg. C., without any other change of conditions,  $\tau$  was 9.1 days, and this is shown as curve H in Fig. 4, compared with two observed curves J.

Other conditions of storage can be taken into account in the calculations. For example, the value assigned to  $R$  may be increased if the surrounding atmosphere is stationary: rapid air-currents are used to accelerate the laboratory tests, but they are unlikely to occur in warehouses.  $R$  will also be increased if packets are stacked together in such a way that the air is denied access to some faces of the wrapper. It is in evaluating overwraps, however, that the concept of resistance is most convenient, because it may be necessary to combine the resistances of wrappers in parallel and in series. Thus, ten packets, each of ten cigarettes, and each having a resistance of 16.7 mb/cent/day, could be overwrapped with a layer of moistureproof cellulose film having a resistance of 6.89 mb/cent/day, on the same basis. Then the resistance of 6.89 is in series with ten parallel resistances of 16.7, and the overall resistance, allowing for the tenfold increase in dry weight of contents, is 85.6 mb/cent/day. This result emphasizes the benefit which is derived from bulk overwraps, and one or two calculations will show which is the most efficient way of overwrapping various products. Because the logarithmic life-curve is a straight line, it is easy to plot a composite curve to depict storage in a bulk overwrap followed by further storage as single packages. If it is found that each of two dissimilar wrappers affects the resistance of the other, this may be allowed for by taking samples from finished packets. For example, contact with warm greasy paper reduces the resistance of moistureproof cellulose film from 6 to 3 or less.

In all the above comparisons between calculated and observed rates of gain or loss of moisture, the observed life has been longer than that calculated. This is because the values for resistance have been taken from

laboratory measurements made under conditions more severe than those of normal exposure.<sup>6</sup> Closer agreement could have been obtained by testing under mild conditions, but in general, it is desirable to predict a "life" shorter than that of any packet in a consignment. It is possible to derive, by extrapolation from the experimental curves, a value for the observed "half-life," that is to say the time taken to reach half-way moisture content. Extrapolation is better than continuing the observations until the half-life has been exceeded, because repeated handling reduces the resistance of the packet. The ratio  $F = \tau_{\text{obs.}}/\tau_{\text{calc.}}$  then gives an indication of the "safety factor,"  $F$ , in the calculation. Thus, in Fig. 2, it may be estimated that a moisture content of 10.1% would be reached at 20 days, on average, so that  $F = 20/4.4$ , or 4.5. This factor expresses the correlation between calculation and observation, and a number of values from accelerated aging tests are shown in Table I. Average results for a number of packets are given in most cases.

The safety factor appears to fall as the severity of the storage conditions approaches that of the conditions under which the resistance was measured. In general, if the laboratory measurements are made at 40 deg. C., the safety factor at 20 deg. C. will be about 10; at 35 deg. C. it has fallen to about 2.5.

The "resistances to aqueous penetration" are published for most commercial wrappings, but it may be useful to give some values of  $\mu$  calculated from published isotherms,<sup>7</sup> or from laboratory measurements. They are: apples, dehydrated, 0.40; beef, dehydrated, 0.130; biscuits, army, 0.165; biscuits, shortbread, 0.158; cabbage, dried scald, 0.36; carrot, dried scald, 0.35; eggs, dried, 0.17; milk, spray-dried, 0.117; peas, dried, 0.25; rusks, 0.225; silica gel, 0.46; soup, dried, 0.32. These figures may need to be modified to suit individual cases, but a check between prediction and performance on some accelerated tests such as those described above will serve to give confidence in this short method of calculating package life.

It has been shown above how the calculation of

<sup>6</sup> Berry, *Plastics*, 1945, 9, 33.

<sup>7</sup> Makower and Dehority, *Ind. Eng. Chem.*, 1943, 35, 2. Gane, *J.S.C.I.*, 1943, 62, 139, 185.

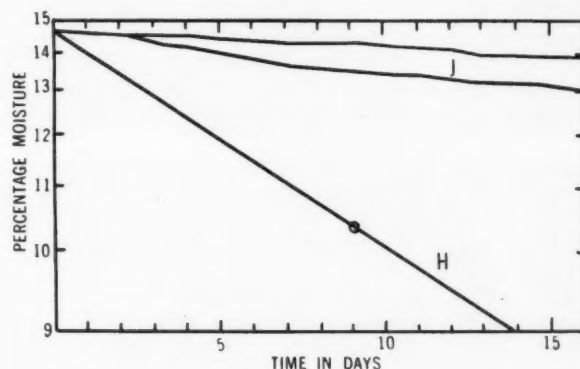


FIG. 4

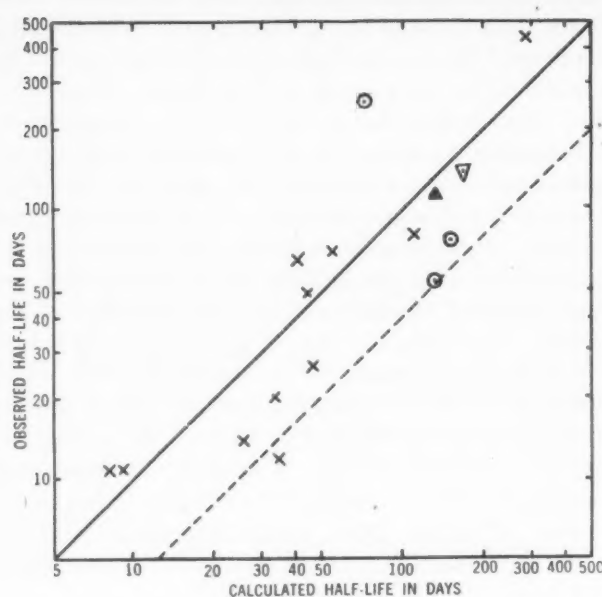


FIG. 5

package performance could be simplified by making certain assumptions. The equation finally derived (Fig. 5) was deliberately kept as simple as possible, but because of the interest shown, it is considered justifiable to extend the formula to provide a means of predicting performance, instead of a rough check on efficiency.

In the half-life equation,  $\tau = 69.3 R\mu F/p_s$  (where  $\tau$  is the half-life,  $R$  the package resistance,  $\mu$  the average increase in moisture content of the packed materials corresponding to a 1% increase in relative humidity,  $F$  the "Safety Factor" and  $p_s$  the aqueous vapor pressure at storage temperature), it was found that  $F$  was of the order of ten when  $\tau$  was measured at 20 deg. C. and  $R$  was based on measurements of permeability made at 40 deg. This note shows how to eliminate the arbitrary

change in  $F$  with temperature: no allowance is made for thermal variations in  $\mu$ , because such variations, although recorded, are small in comparison with the variation in  $F$ .

Barrer<sup>8</sup> has shown that the variation of permeability constants with temperature, for a number of resins, follows the equation  $P = P_0 e^{-E/RT}$ .

If it is assumed that  $F$  is the ratio between the resistance of the package at the temperature of storage ( $R_s$ ) and that at the temperature of measurement ( $R_m$ ), then  $F = R_s/R_m = P_m/P_s = e^{(E/R)(1/T_s - 1/T_m)}$ .

The ratio is too cumbersome to use in the half-life formula, but the saturation vapor-pressure of water,  $p$ , also follows an exponential curve  $p = p_0 e^{-E'/RT}$ , so that  $P = ap^k$ , and  $P_m/P_s = (p_m/p_s)^k$ , where  $k$  is a constant depending on the ratio of  $E$  to  $E'$ .

Unfortunately, present resources do not permit of the accurate measurement of  $k$  for a representative range of wrapping materials. All that can be said from established results is that, for moistureproof regenerated cellulose film, the value of  $k$  appears to be between 1.5 and 2, and that although 1.5 is the more accurate value, the approximation of 2 does not seriously increase the error of estimate. The relation holds over the range from 40 deg. C. down to 15 deg.

The half-life equation thus becomes  $\tau = 69.3 R\mu p_m^2/p_s^3$  and this equation, although somewhat more complex than the original, can be used to give an estimate of  $\tau$  which will not embody a variable safety factor. The numerator is, of course, a constant for any package, and can be conveniently regarded as a "Package Efficiency Unit."

Some calculated values of  $\tau$  are compared in the figure with observed values: the agreement (correlation,  $r^2=0.62$ ) is as good as can be expected in view of the variation between packages.

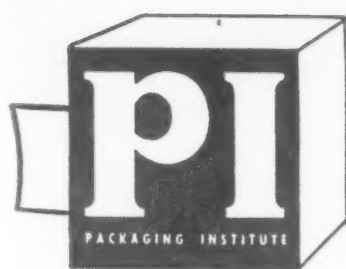
The framed dots represent (Continued on page 172)

<sup>8</sup> Barrer, Diffusion in and Through Solids, C.U.P., 1941, p. 436.

TABLE I—VALUES FROM ACCELERATED AGING TESTS

Contents	Method of wrapping	Storage conditions	Half-life		
			Obs.	Calc.	F
10 cigarettes	Carton overwrapped with single wrap of 0.001-in. moistureproof cellulose film	23.8° C., 45% R.H.	71	9.1	7.8
10 cigarettes	Carton, two wraps of film	" " " "	166	18.3	9.1
10 cigarettes	Carton, wrap of 17 lb. waxed paper, and wrap of 0.001-in. moistureproof film	" " " "	82	9.9	8.3
10 cigarettes	Carton, single wrap of moistureproof film	35° C., 45% R.H.	11	4.8	2.3
10 cigarettes	Carton, two wraps of moistureproof film	" " " "	26	9.6	2.7
10 cigarettes	Carton, waxed paper and moistureproof film	" " " "	8	3.5	2.3
10 cigarettes	Carton, 0.0015-in. rubber hydrochloride film	" " " "	27	13.8	2.0
50 cigarettes	Bundle of 5 cartons, each of 10 cigarettes, each carton in single layer of moistureproof film	" " " "	11	5.0	2.2
50 cigarettes	Bundle of 5 cartons, each carton in two layers of moistureproof film	" " " "	28	10.0	2.8
100 cigarettes	Ten cartons, each wrapped in single layer moistureproof film. Whole overwrapped, in squat stack, with single wrap of moistureproof film	" " " "	43	26.8	1.6
100 cigarettes	Ten singly wrapped cartons, overwrapped in long stack, with single wrap of moistureproof film	" " " "	73	24.7	3.0
1/2 lb. biscuits A	Single layer of low-resistance film	23.8° C., 75% R.H.	20	4.4	4.5
1/2 lb. biscuits B	Single layer of low-resistance film	" " " "	13	5.4	2.4
1/2 lb. biscuits C	Single layer of low-resistance film	" " " "	27	4.1	6.6
5 oz. dried egg	Waxed-board carton	" " " "	73	9.0	8.1
5 oz. dried egg	Waxed carton, with single wrap moistureproof film	" " " "	135	34.0	4.0
5 g. silica gel	1/20 cu. ft. box, lined with moistureproof film	35° C., 75% R.H.	41	16.0	2.6





# Standard Test Methods

## 1. Definition

The block point is the minimum temperature required to develop adhesion between two surfaces of material under specified conditions of time and pressure.

## 2. Intent and scope

The test has as its prime objective the determination of the resistance to self-sealing of processed and unprocessed materials under the effects of heat and pressure; in some instances under controlled humidity conditions for prolonged periods of time in order to estimate beforehand the possible hazards or precautions to be observed in the storage and uses of the material.

## 3. Apparatus—Ovens

### A. Description—

1. A low humidity oven set at a constant temperature of 100 deg. F.

2. Four-temperature controlled ovens with a temperature range from room temperature to 350 deg. F. with  $\pm 2$  deg. accuracy. These four ovens are maintained at constant temperatures of 110 deg., 120 deg., 130 deg. and 140 deg. F.

## 4. Reagents and Accessories

A. A  $1\frac{1}{2}$ -lb. weight with one surface having an area of one square inch. This surface must be flat and smooth, uniform and over-all contact (Fig. 1).

B. Heat sealable, flexible aluminum foil pouch, which may be sealed and which is large enough to accommodate a folded sample (Fig. 1).

## 5. Test Samples

A. *Sampling*—Ten samples representative of the material being tested are cut out—the size being immaterial as long as the sample projects from all sides of the weight after the material has been folded.

B. *Preparation*—Fold the samples in thirds (Fig. 2). There will then be face-to-face and back-to-face contacts. Fold the samples again end to end giving a back-to-back contact.

## 6. Procedure

A. *Standard Conditions*—Two folded samples are placed in each of the ovens under the  $1\frac{1}{2}$ -lb. weight for 24 hrs., at the end of which time they are removed, cooled to room temperature and evaluated (Fig. 3).

B. *Exceptions*—When materials whose moisture content would be critical or materials which may have retained any solvents are to be tested, they are first

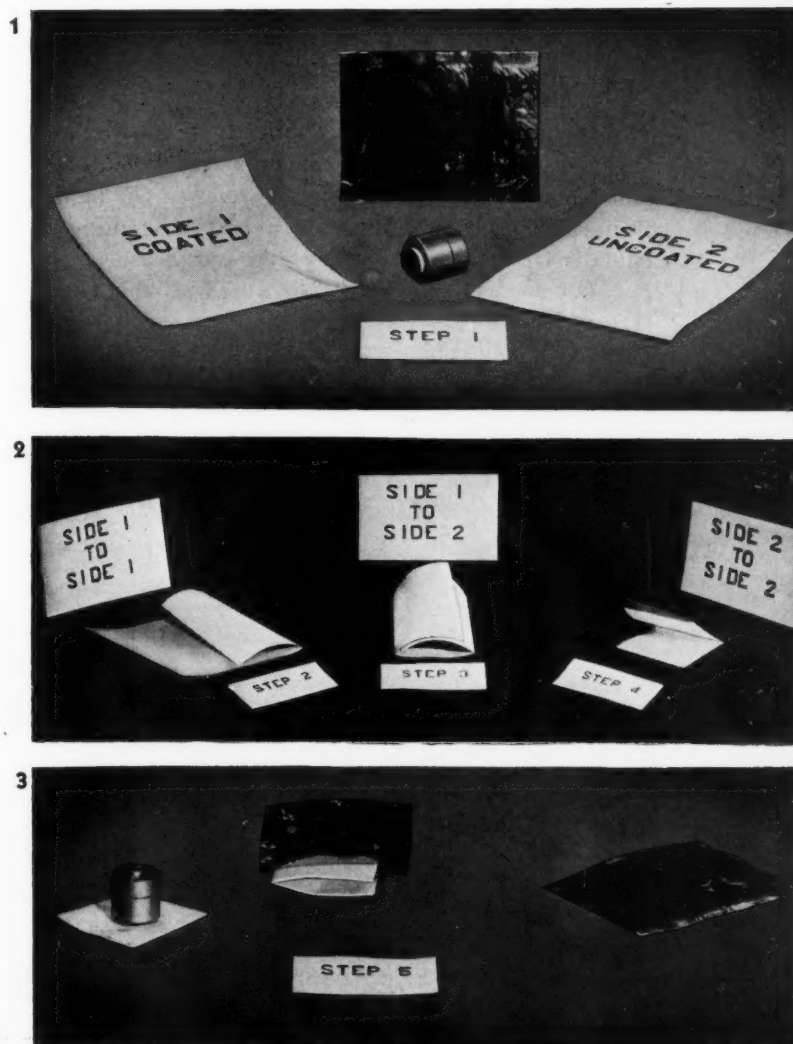
## 5. For block point

sealed in a foil pouch before being placed in the ovens (Fig. 3).

## 7. Calculations

An average of the adhesion developed by the two samples is rated as follows:

- 10—excellent—no adhesion (sample falls apart)
- 9—very good—very slight adhesion (mechanical cling)
- 8—good—slight adhesion (tackiness)
- 7—passable (limit of acceptance) noticeable adhesion but no mechanical change in surfaces after separation
- 5—unsatisfactory—sample difficult to separate and some mechanical change in surfaces.
- 3—surfaces transferring (Continued on page 170)





PHOTO, KIMBERLY-CLARK CORP.

An example of simplified cushioning to prevent self-abrasion of parts within a package. This pack uses creped cellulose wadding and flexible corrugated paper.



PHOTO, JIFFY MFG. CO.

The Jiffy sleeves shown here are made up of macerated newsprint sealed between two sheets of kraft paper. The sleeves are used to protect bottles of champagne.

## Cushioning materials... 2. analysis and selection

by Harold H. Berk

**A**t the close of the war more than twenty-five different cushioning materials were used to advantage in protecting war materials. That these materials did their job is evidenced by the improved condition in which the supplies and equipment reached the fighting fronts even after receiving the roughest of handling and climatic treatment, when they were put in use.

It is true that a few materials were available only to certain branches of the Armed Services shipping very fragile and delicate instruments while other services had to be content and make the most of the material that was available to them.

With the close of the war, many manufacturers ceased to make specialized cushioning materials and adopted products to meet the great demands of the civilian populace, leaving us with the same materials that were popular in earlier days.

Because of the critical shortages of many types of cushioning materials experienced during the war, the present trend is toward adopting suitable non-critical

materials which will serve the purpose and be able to fill all demands should the occasion arise.

### Review of materials

Here are some of the most widely used cushioning materials, with a review of the uses, advantages and disadvantages of each:

**Excelsior**—Wood excelsior used for cushioning should have a moisture content of between 12 and 18% and should conform to the requirements of Federal Specification No. NN-E-911, using the fine and medium grades. Excelsior provides good protection for heavy articles when properly used. Its cushioning qualities are only slightly affected by water and dampness, but have a tendency to lose resilience when moisture content decreases below 12%. This material is quite easy to obtain and is relatively inexpensive.

Excelsior should never be used as a cushioning material within a water-vaporproof barrier for method II preservation (package containing a dehydrating agent), but can be used in its natural state in the packaging of wet-cell batteries and for cushioning sealed interior packages. It is also very good for cushioning in direct contact those articles which have continuous unbroken surfaces, such as glass bottles, etc., in that it is hygroscopic and will have a tendency to absorb spilled liquids.

The disadvantages of excelsior are many, but for the most part can be overcome by placing it in waterproof, sift-free pads or sleeves, and by using it with a neutral barrier material. The disadvantages in using this material arise because excelsior:

*This is the concluding half of a comprehensive review of cushioning materials and practices, based on the author's wartime experience as a packing and crating specialist for the Army Air Forces and the Processing and Packing Branch, Army Engineer Board.*

1. Is corrodible; its moisture and chemical content may corrode critical surfaces.
2. Is dirty and dusty; contains foreign contaminants.
3. Is a fire hazard.
4. Dusts; its particles may damage the interior of complex equipment.
5. Is coarse; its roughness may mar highly finished surfaces.

*Creped cellulose wadding*—When creped cellulose wadding is used, it should conform to Army-Navy Aeronautical Specification No. AN-W-18 which specifies that the material should have a hydrogen ion concentration (pH value) falling between 6.0 and 8.0, and should show no signs of deterioration after being submerged in water for 24 hours.

Many branches of the services praise this material as the best cushioning available, in that it is relatively non-corrosive and can be used in direct contact with metal surfaces even within water-vaporproof barriers; it is resilient, and it can be obtained in a fireproof and waterproof state.

The outstanding disadvantages of this material are that it should be restricted to the lighter and more fragile articles, and the fact that this material loses its resilience when wet, and has a tendency to dust after repeated rough handling.

Creped cellulose wadding has been successfully used for heavy articles when used in combination with an overwrap of corrugated paper.

*Shredded plain paper*—The use of shredded paper should be limited to light articles and for domestic shipments only. It is not a good cushioning material, but has been used for overseas shipment by many manufacturers and accepted by some service branches on the theory that a poor material was better than none.

The only advantages to the use of this material are that it was readily obtainable and fairly inexpensive.

*Wood wool makes a good cushioning material. Below, strips of Tufflex are being cut and assembled in layers at bearing points on the bottom and sides of the crate.*



The disadvantages more than overshadow the advantages. This material wads, disintegrates and loses all of its cushioning properties when it becomes wet or damp. In addition this material is corrosive, and usually contains dirt, dust or other foreign contaminants.

When used in waterproof sleeves or pads most of these disadvantages can be eliminated.

This material may be used in tight containers which exclude free moisture, provided that it is not placed in direct contact with the articles being cushioned.

*Shredded wax paper*—This material has the same advantages, disadvantages and properties as shredded plain paper, except that it has slightly more resistance to moisture.

*Shredded parchment paper*—This material is very good as a cushioning agent, as it can be procured in a neutral state with a pH value of 7 plus or minus 0.5, and has high resistance to moisture.

In its neutral state it can be used in direct contact with metallic surfaces and affords very good protection against shock and abrasion.

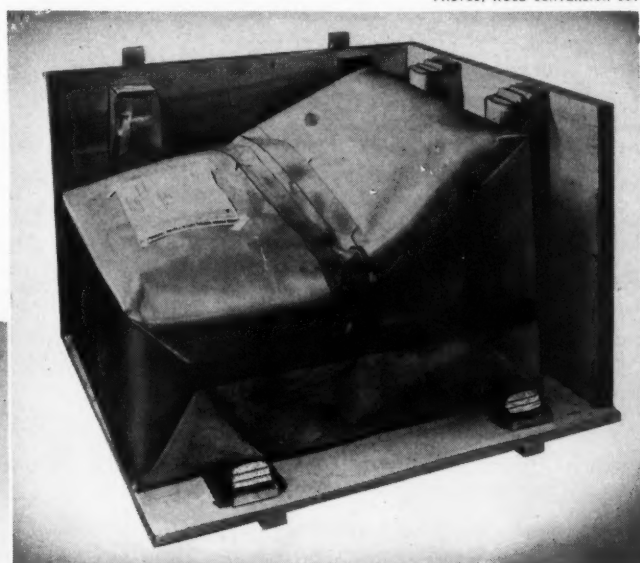
The disadvantage of this material is that it is not practical for general use because of its price. In addition it can support only very light loads, and must be used in abundance.

*Greaseproof barrier-materials*—These materials are excellent cushioning materials in that they are neutral and will not corrode metallic surfaces. They are used primarily to separate other corrosive cushioning materials from contact with corrodible surfaces.

They are at present considered too critical and expensive to be used by themselves.

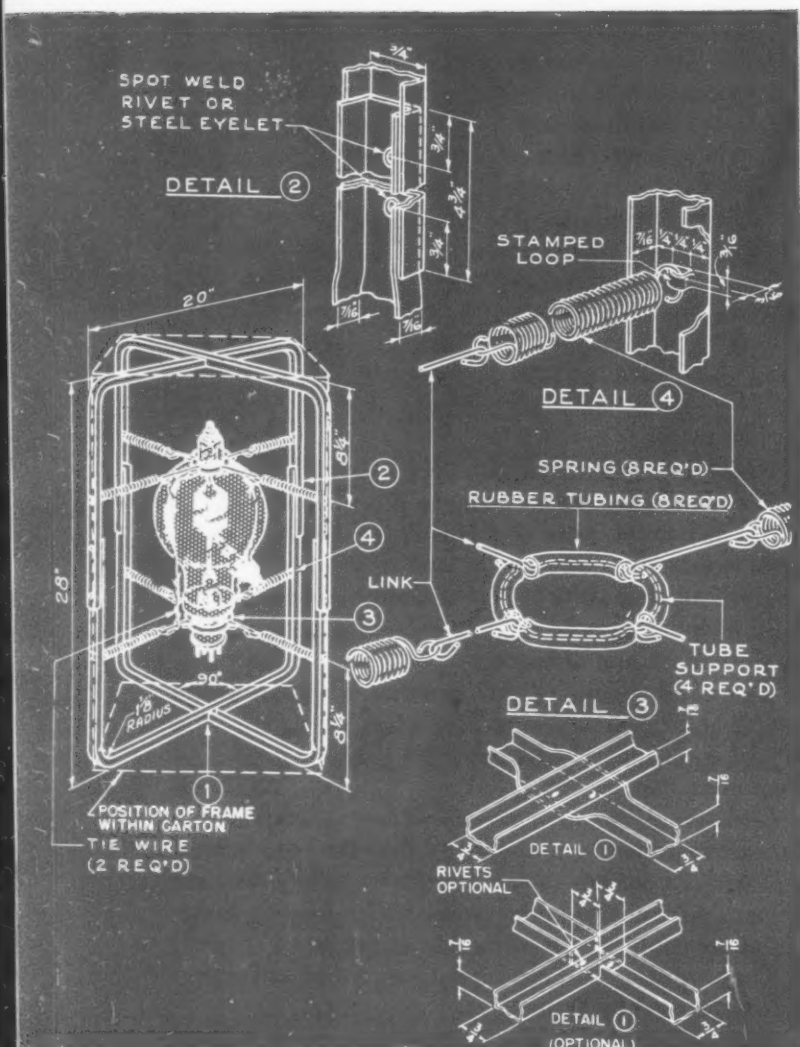
*Hay and straw*—Although used commercially, these

PHOTOS, WOOD CONVERSION CO.



*Fragile instrument (above), wrapped and nested in crate on pads of resilient wood wool. Pads and wood strip by which they are attached to crate are also wrapped in paper.*





Full floating pack for a fragile electronic tube makes use of a series of springs suspended on a metal frame. This unusual pack is fully covered by JAN Spec P-75.

materials should never be used in cushioning equipment or supplies procured by the armed services.

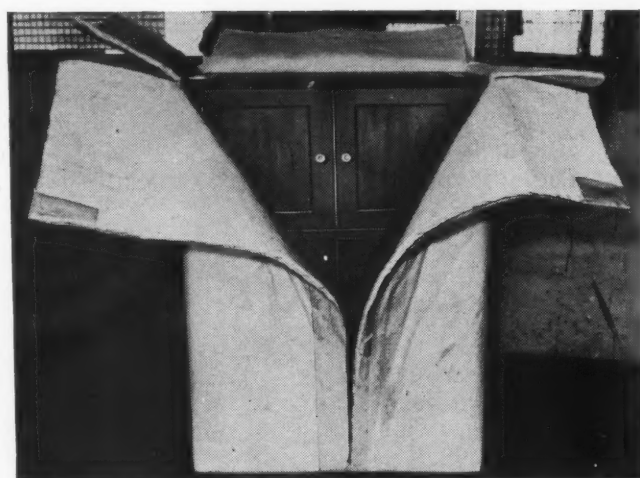
The disadvantage of these materials are that they may contain bugs, lice, etc., which should not be transmitted to other locales, as well as dust and other contaminants. In addition, upon becoming wet, these materials lose all of their cushioning properties and provide a good media supporting the growth of various fungi and other bacteria.

**Felt**—Semi-hard felt used in cushioning should conform to the requirements of U. S. Army Specification No. 8-144.

This material is very good when placed under strapings to protect fragile surface from abrasion due to blocking and bracing. Because this material is corrosive in nature it is recommended that it be covered with metal foil or a neutral barrier-material.

The disadvantages in using this material are that it is acidic in nature, hygroscopic, has a tendency to cause abrasion and is attacked by fungi.

The latter disadvantage can and should be overcome



PHOTO, WOOD CONVERSION CO.

Blankets of wood wool provide not only cushioning but scratch protection for polished furniture surfaces.



PHOTO, KIMBERLY-CLARK CORP.

Valuable medicinals, such as these flasks of saline solution, are well cushioned when diagonally wrapped in a moisture-resistant 10-ply kraft-backed crepe wadding.

by fungus-proofing this material when it is used for overseas shipments.

**Flexible corrugated paper**—Flexible corrugated paper, when used as a cushioning material, should have a corrugated medium of not less than 9 points in thickness and a kraft backing sheet with a basic weight of from 35 to 100 lbs. When used in direct contact with preserved or corrodible metal surfaces, it should have a greaseproof lining conforming to the requirements of grade A barrier-material of Joint Army-Navy Specification JAN-P-121.

The disadvantage of this material is that it loses its cushioning properties when it becomes wet, and therefore should be used within tight containers which exclude free moisture.

**Mineral wool (spun glass)**—This material is good as a cushioning agent in that it is non-hygroscopic, and is very resilient when limited to lightweight loads.

The disadvantages in using are that it irritates the skin, causing some cases of dermatitis, and it has a tendency to become brittle when exposed to frigid tem-

peratures. This material produces that type of dusting which in most cases must be guarded against. The dust is composed of small pieces of glass which are dangerous to precision surfaces and moving parts. Spun glass should not be used to support heavy loads.

*Semi-rigid corrugated fibreboard*—Pads, cells, trays, partitions and dividers made from corrugated fibreboard are used to hold relatively light articles in place. They protect fragile articles from damage by holding them away from the sides of the container and away from each other. Fragile articles packed singly in containers can be cushioned by cells.

There are some disadvantages. These materials lose their cushioning properties when exposed to moisture and should be used if possible in water tight containers. Because of their corrosive nature they should never be placed in contact with corrodible surfaces.

*Curled hair latex*—Curled hair latex is a resilient material manufactured from cattle tail, horse tail and mane, blended with swine bristles and bonded together with rubber latex. Prior to treatment with latex the hair and bristles are put through a cushioning process which imparts a permanent curl of great resilience. The curled material is then treated with latex and vulcanized into permanent shapes, either in flat sheets or molded for special purposes in desired conforming shapes and sizes.

This material is relatively non-hygroscopic, absorbing about one half the amount of moisture that is absorbed by wood. It suffers small amount of thickness loss under repeated stresses, and some allowance for prestressing should be made in designing pads.

The use of latex impregnated hair is not practical at static pressures exceeding 1 lb./sq. in. At this pressure it is compressed to about 40 to 60% of its unstressed thickness and only about 60% of the remaining thickness can act as an effective cushion under large impact stresses.

The material can be used to great advantage in the mass packaging of standard items because of the ease with which it can be molded to any required shape during its manufacture.

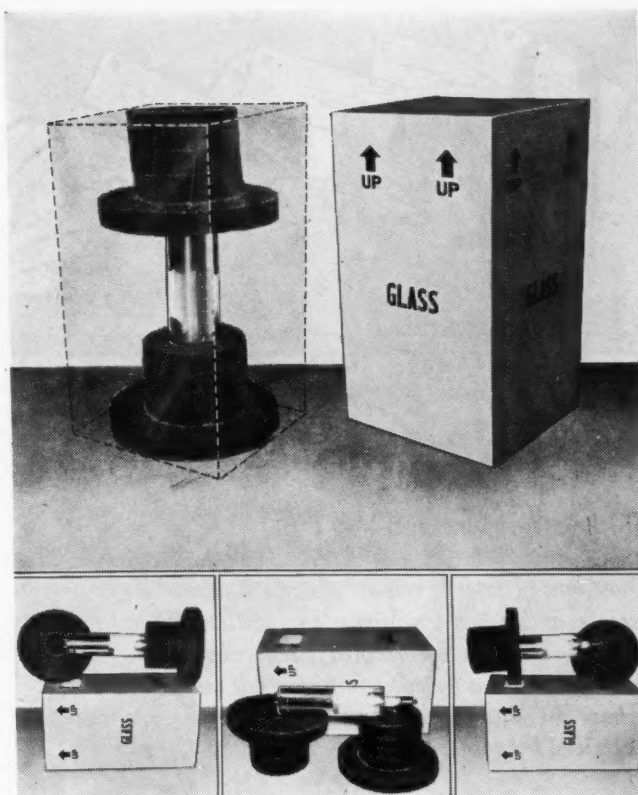
A disadvantage of this material is that it may be acidic and therefore may require the use of neutral non-corrosive barrier materials. This material has been quite difficult to obtain in the past, being used almost exclusively by the Army Air Forces.

*Folded hair latex*—This material has the same properties as shown in the paragraphs above; differing only in the fact that it is manufactured entirely from hog bristles and synthetic latex.

*Cactus fibre latex*—Similar to curled hair latex and folded hair latex, above, except that cactus fibre is used in lieu of animal hair.

*Sawdust, shavings*—These materials are good when used to cushion liquids contained in breakable containers. They have the ability to absorb the liquid which may leak out without losing their cushioning properties.

These materials should (Continued on page 174)

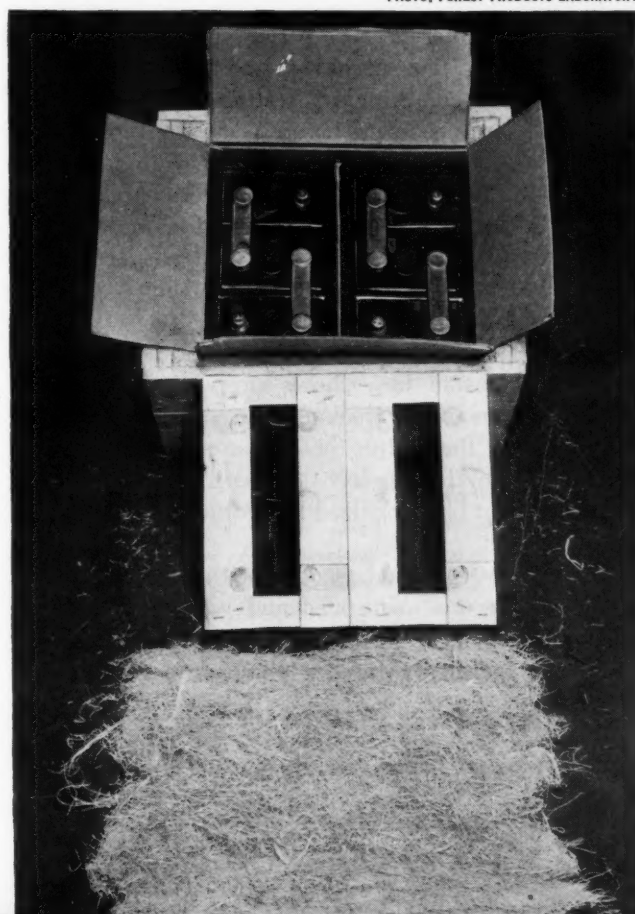


PHOTO, SPONGE RUBBER PRODUCTS CO.

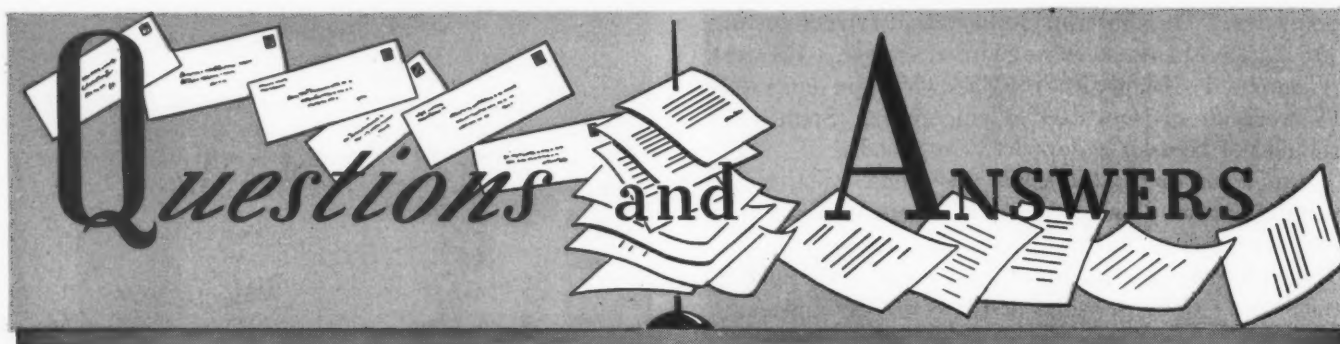
Molded caps of sponge rubber, fitted over both ends of this large and valuable radio transmitter, make adequate shock absorbers inside the corrugated container.

The right way to use excelsior. Two batteries are sealed in a solid fibre carton (with wood protector over top) and carton is surrounded on all sides with excelsior.

PHOTO, FOREST PRODUCTS LABORATORY







*This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.*

### Thickness of film and WVT

*Question: I have heard the statement made that some materials under low temperature conditions of testing show no differences in permeability, regardless of the thickness of the film being tested. Can you tell me materials which behave in this manner and your theory for the above described behavior?*

**ANSWER:** Your question obviously concerns plastic or organic films since, of course, metal foils would have permeabilities approaching zero and would show no change in values for increasing thickness beyond a certain value.

Organic films of measurable permeability would necessarily have to show some relationship between values of permeability and thickness. The results which you have seen may be due to the fact that the method used for determining the permeability is not sufficiently sensitive or accurate to differentiate between slight differences of permeability. This would be particularly true at low temperatures where very long times of conditioning, testing and very careful techniques are necessary before accurate, reproducible results can be obtained. (See PI Standard Test Methods. 1. For Water-Vapor Permeability at 0 deg. F., MODERN PACKAGING, July, 1946.)

For example, one of the resin base transparent films approximately  $\frac{1}{1000}$  in. in thickness shows a water-vapor permeability value of 0.02 gram/100 sq. in. when tested at 0 deg. F. using calcium chloride in the test cups. This same film shows proportionately lower values for increases in thickness but you can appreciate the fact that the testing procedure must have a sensitivity of something better than 0.01 gram before such differences can be recognized and for accurate values to be established.

There are other resin base films with lower permeabilities than the one mentioned and you can appreciate the degree of accuracy necessary to measure the differences in permeabilities for changes in thickness in these films.

It is also true that if you were interested in temperatures lower than 0 deg. F. it would be even more

difficult to notice the increasingly smaller differences in permeability.

### Wet pack pouch?

*Question: We are interested in finding a pouch in which a wet dog food can be packed so that it will keep for several weeks in the marketing outlet. We have been furnished pouches, but the wet packed products have to be kept under refrigeration to prevent them from mold growth, etc. At one time there was a report in the literature that successful development of such a container was under way. Would you be able to trace down the manufacturer for us so that we could get in touch with him directly about our particular problem?*

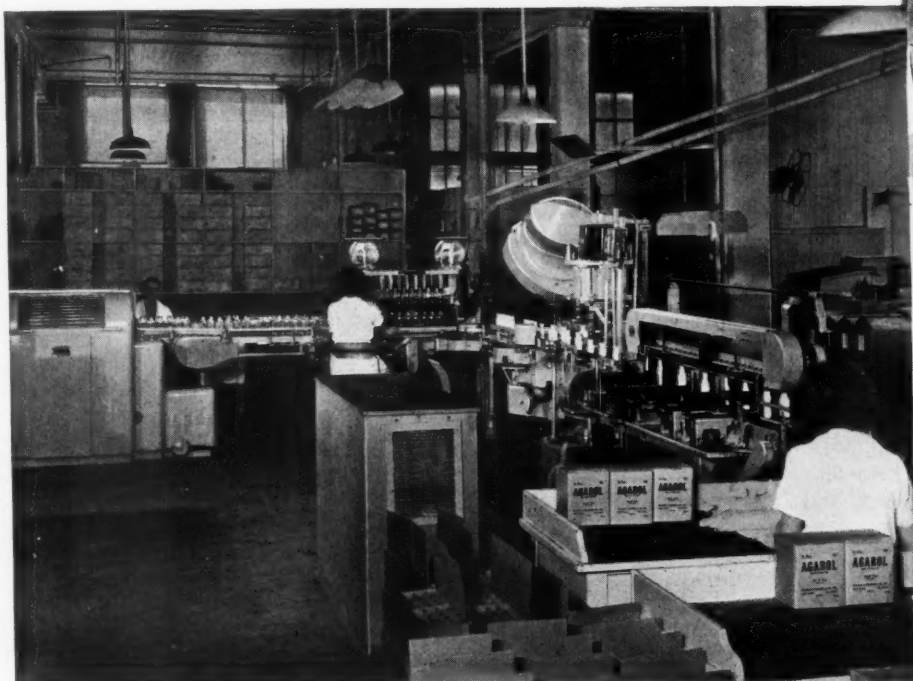
**ANSWER:** There is no package today which can keep a wet or damp unprocessed dog food in normal merchandising channels for the several weeks you desire. There are many packaging materials which can be formed into a container sufficiently tight and durable to hold damp or wet products. Such materials would also protect the product against moisture loss. However, such packaging materials could not in any way prevent putrefaction or spoilage from developing in the product itself.

There have, from time to time, been coatings and additives which have been used with packaging materials to inhibit mold growth, but none of these would be potent enough to prevent spoilage in the interior of a product as susceptible as an uncooked food with a high moisture content. Cool storage is necessary to defer bacterial and fungicidal activity until the product has been consumed.

It might be possible for you to package your product in certain package constructions using plastic films as liners, providing your product has been sterilized and packaged in a hot condition. Such procedure is not well established and its success will depend upon the particular composition of your product, methods of handling, size of units and, above all, skill in making closures. However, you might be interested in doing developmental work along these lines and you can obtain such package liners from any of several different manufacturers.



All these *"Best Sellers"*  
in **DRUGS and TOILETRIES**



*A typical bottling installation operating in St. Louis Plant of Wm. R. Warner Co., Inc.*



**DRUGS**

ELI LILLY • UPJOHN  
LEDERLE • WYETH  
UNITED-REXALL DRUG  
McKESSON & ROBBINS  
SHARPE & DOHME  
SQUIBBS  
LAMBERT PHARMACAL  
STERLING DRUG  
EMERSON DRUG  
ABBOTT LABORATORIES  
PARKE-DAVIS  
PINKHAM MEDICINE CO.  
LEHN & FINK  
WALGREEN DRUG  
W. F. YOUNG, INC.  
HENRY K. WAMPOLE  
HYNSON, WESCOTT & DUNNING  
JOHNSON & JOHNSON  
GROVE LABORATORIES

**TOILETRIES**

PACQUINS • PONDS  
LADY ESTHER  
JERGENS LOTION  
FITCH SHAMPOO  
WILDROOT • AQUA VELVA  
CUTEX • CAMPANA  
VITALIS • HINDS  
JERIS • NOXZEMA  
MENNENS • WOODBURY'S  
DRENE • VASELINE

...depend on **PNEUMATIC**

Regardless of what is claimed for a piece of machinery, its final proving ground is in your plant—or in others like it.

What it does then is the real test of its worth and the real endorsement of its efficiency.

For that reason the knowledge that all these famed makers of America's leading drugs and toiletries make wide use of Pneumatic equipment for cleaning, filling, capping and labeling their containers is worth money to you. After years of experience they have practically standardized on Pneumatic equipment because they have proved conclusively that (1) Pneumatic machines live up to their performance promises; (2) Need less "time-out" for adjustment and repairs; (3) Last longer; (4) Produce better results at a "Lower Cost Per Container."

A Pneumatic representative will be glad to talk with you. PNEUMATIC SCALE CORPORATION, LTD., 82 Newport Ave., North Quincy 71, Mass. Branch Offices in New York, N. Y.; Chicago, Illinois; San Francisco, California; Los Angeles, California.

**PNEUMATIC**

**PACKAGING AND BOTTLING MACHINERY**

Over eighty different machines for the packaging of dry, free-flowing products and the cleaning, filling, capping and labeling of containers for liquids and semi-liquids



# WASHINGTON REVIEW

● **Glass Restriction Lifted**—L-103, the famous WPB glass container order, has been revoked by CPA as of October 30th. Glass production, it will be only too well remembered, was restricted by order in April, 1942, and for more than four years glass productive capacity has been stretched as far as possible by the freezing of special molds and applying rigid standardization principles.

Revocation of this order will have little immediate effect on glass container production, say the experts, who point out that mold making capacity is strained to the utmost, and glass making facilities are still carrying a heavy load. It is only a question of time, however, before special molds will begin to appear again.

● **Outlook for 1947**—"The Container situation in 1947 may be slightly easier than in 1946, but the need for continued conservation and salvage is indicated."

This general statement reflects the attitude of the Agriculture department as it involves containers for shipping and marketing agricultural products. Discussing the outlook further, the department says (in the 1947 outlook issue of *The Marketing and Transportation Situation*, BAE publication):

"Wooden containers for shipment of winter fruits and vegetables will doubtless continue in tight supply into 1947. The situation in the Southeast and Southwest probably will not be critical as to supplies of lumber and veneer for winter vegetable shipments. With shook supplies in the West currently estimated far below requirements, farmers and shippers will face a problem in obtaining adequate supplies for winter fruits and vegetables, including citrus and juice.

"Can makers probably will be in position to supply sufficient tin cans for winter fruits and vegetables, unless there are further work stoppages in steel production. The same applies to nails and stripping.

"No great amount of burlap or cotton bags is required for the winter vegetable crop. Supplies of paper bags for potatoes and open mesh cotton bags for citrus should compare favorably with the supplies available in 1945-46. Twine and other items will be in minimum supply, but it is probable that the quantities

necessary for winter vegetables can be arranged for.

"For poultry and eggs, the lack of wooden containers will be made up by increased use of fibre containers. For other food products, the container situation for 1947 appears generally satisfactory."

Other excerpts: "Interest in the prepackaging of fresh fruits and vegetables, which has been widespread this year, probably will be intensified in 1947. Surprising accomplishments have been chalked up, considering the short time since the idea of prepackaging was first broached. Also, shortages of materials and equipment have interfered with the rapid introduction of any new merchandising development during the past few years. A good many retail food store operators and some wholesalers and shippers have been carrying on experimental operations in this field. As yet, however, no general, large-scale prepackaging operation has been placed on a strictly commercial self-sustaining basis. Of course, a number of commercial prepackaging operations are practiced in tomatoes, spinach and other products, but these are not comparable to general, full-time operation. . . ."

"Prepackaging operations undoubtedly will face many problems in shaking down into an established competitive pattern. This will take time. . . . Eventually, when consumers have had an opportunity to evaluate the advantages of prepackaged merchandise in relation to its cost, it seems probable that some products will be handled in prepackaged and others in bulk form. . . ."

● **Pulp and Paper**—From another arm of the Government comes the warning that, with demand for pulp, paper and paperboard still running far ahead of supplies, there is no immediate prospect for improvement in the situation. Commerce department officials feel that it is likely that many non-integrated paper and paperboard mills, particularly those already operating on day-to-day supplies, probably will be forced to curtail operations this winter. Despite comparatively large overseas pulp imports in July, mills were not able to increase their inventories, and the sharp drop in imports in August

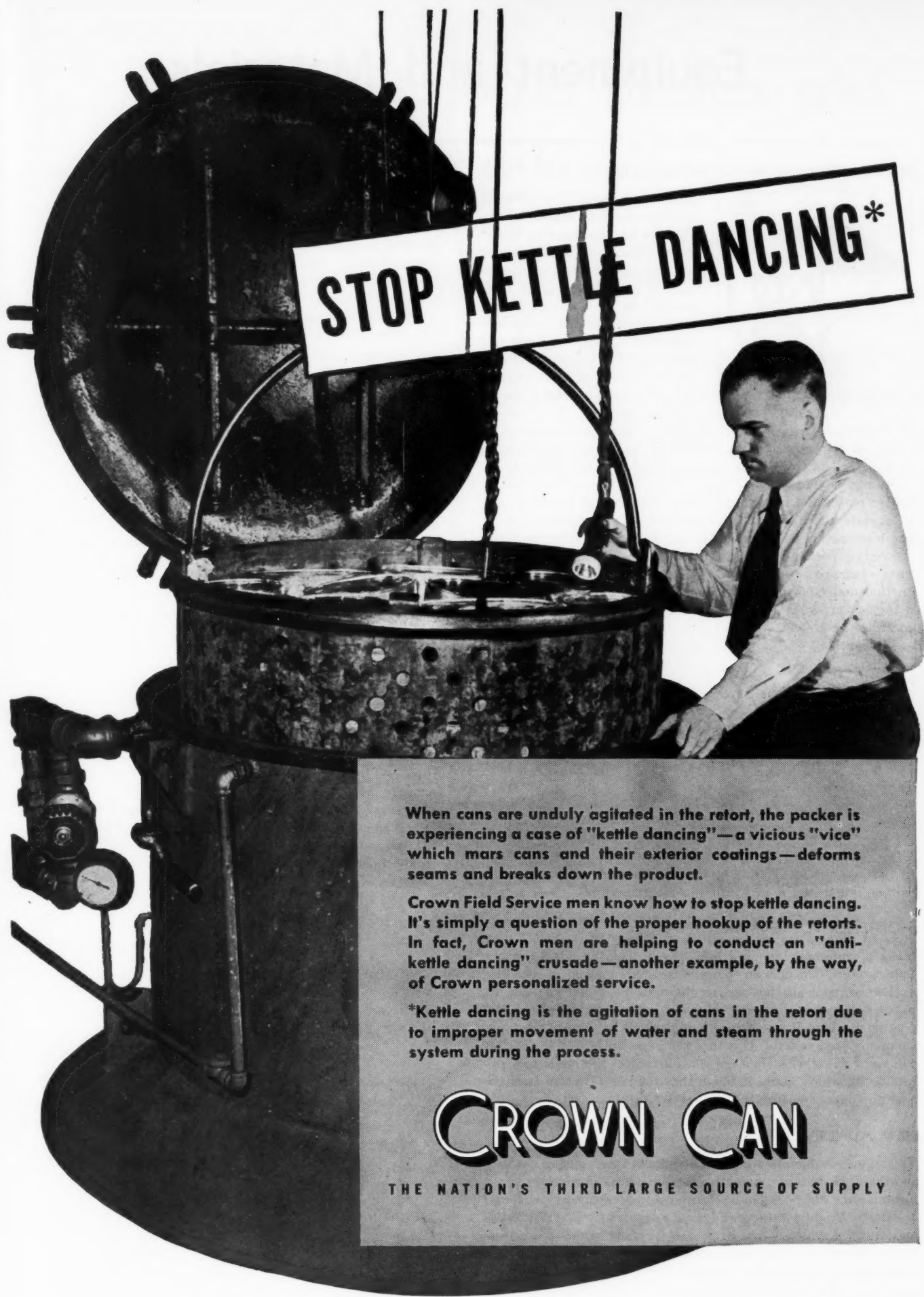
cut inventories to lowest since last winter, despite high domestic production.

Full-scale pulpwood operations on the West coast are still being somewhat hampered by lack of equipment and heavy trucks, but at the same time, the Census Bureau reports that U. S. August paper and board production amounted to 1,686,938 tons—some 51,000 tons above the previous high established in March of this year, and about 212,000 tons over the seasonally low record for July. Wood pulp production in August was 909,958 tons, about 84,000 tons above July level but slightly below the March figure.

● **Egg Case Experiments**—It will probably be a couple of years or more before anything comes of it, but the Department of Agriculture is working on a three-year program of investigations and tests to determine the best egg case, and to adapt that case—or those cases—to fit the eggs of today. According to experts in the field, the trade is going to need either larger-sized egg cases, fillers and flats than are now in use, or two or three different sizes in cases and cartons, since average size of eggs being marketed has increased rapidly during the past 20 years.

A field survey is to be undertaken this winter to determine fully the type, kind, design, size and other characteristics of egg cases, fillers, flats, cartons, etc., best suited and preferred by producers as well as consumers. Actual tests will begin after results from this survey have been received. Makers of various types of containers, through their associations, are cooperating in the program, as is the Assn. of American Railroads.

● **Paper Cup Tests**—Expendable paper cups which are suitable for serving hot and cold liquids and which are to be used with inserts for mess trays on hospital trains, ships and planes are undergoing tests by the Research and Development Branch of the Quartermaster Corps. The aim is to develop a waterproof, greaseproof, and lightweight cup which retains the desired rigidity when containing hot liquids for a period of time. Plastic, enamelware and chinaware are considered unsatisfactory because of weight and/or bulk and because the washing needs personnel, water and detergents.



## STOP KETTLE DANCING\*

When cans are unduly agitated in the retort, the packer is experiencing a case of "kettle dancing"—a vicious "vice" which mars cans and their exterior coatings—deforms seams and breaks down the product.

Crown Field Service men know how to stop kettle dancing. It's simply a question of the proper hookup of the retorts. In fact, Crown men are helping to conduct an "anti-kettle dancing" crusade—another example, by the way, of Crown personalized service.

\*Kettle dancing is the agitation of cans in the retort due to improper movement of water and steam through the system during the process.

# CROWN CAN

THE NATION'S THIRD LARGE SOURCE OF SUPPLY

CROWN CAN COMPANY • PHILADELPHIA • Baltimore • Chicago • St. Louis • Houston • Orlando • Fort Wayne • Nebraska City

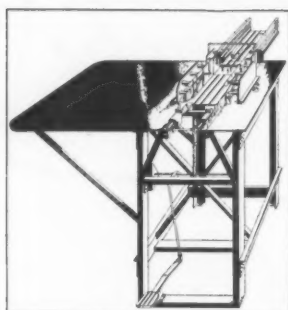
NOVEMBER • 1946

155



# Equipment and Materials

## SEMI-AUTOMATIC WRAPPING MACHINE

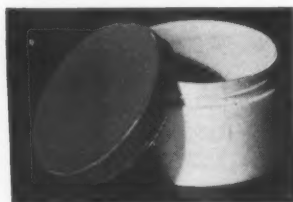


The "Speedwrap" heat-sealing over-wrapper, developed by the Howard Engineering Co., Hollywood, Calif., is designed to speed up and replace hand overwrapping of such products as fresh produce in trays and U-boards, frozen foods, candies, drugs and cosmetics. Requiring only one attendant, the machine is said to seal completely all heat-sealable wraps, as well as package humps and irregularities, at a rate of

25 to 30 packages per minute. Each machine is engineered to overwrap a specific package, minimum size handled is 4 in. wide by 1 in. by 2 in. and the maximum is 12 in. wide by 6 in. by 12 in.

Sealing is effected by thermostatically controlled, spring-loaded plates and fingers. Standard 110-120 volt power is used to operate the adjustable thermostat. A foot-operated pedal and lever pushes the package into the tucker and folder, and the succeeding package pushes it through the machine. Manufacturer claims its usage affords 50% greater overwrapping production and labor cost reduction by at least half, as compared with handwrapping. The company was recently presented with an award for this machinery development when it was exhibited at the Southern California Industrial Exposition in Los Angeles.

## PLASTIC CREAM JAR



Owens-Illinois Glass Co., Toledo, Ohio, has announced that its Plastics Division has conducted a trial run of new, lightweight cream jars of 4-oz. capacity. The jar has a polystyrene base while the threaded screw cap is of a urea composition. When full production can be obtained,

the jar and cap will be available in a variety of standard colors. Sample illustrated is in white and green.

## MOISTENER FOR GUMMED TAPE

Users of gummed tape will find "Kano Tak," made by Kano Laboratories, Chicago, an effective moistening agent in speeding up the adhesion of the tape to the carton. When mixed with water, one part to nine parts of water in the reservoir of the dispensing machine, it is said to provide instant bonding of the tape. Company reports tests show that the paper surface of the carton will come along with the tape when attempts are made to separate them, which would indicate that the bond is often stronger than the paper to which it is fastened.

## NEW ADHESIVES

The adhesives manufacturers, in an effort to combat present-day shortages of certain types of adhesives, have developed some formulations which should be of interest to users of such products.

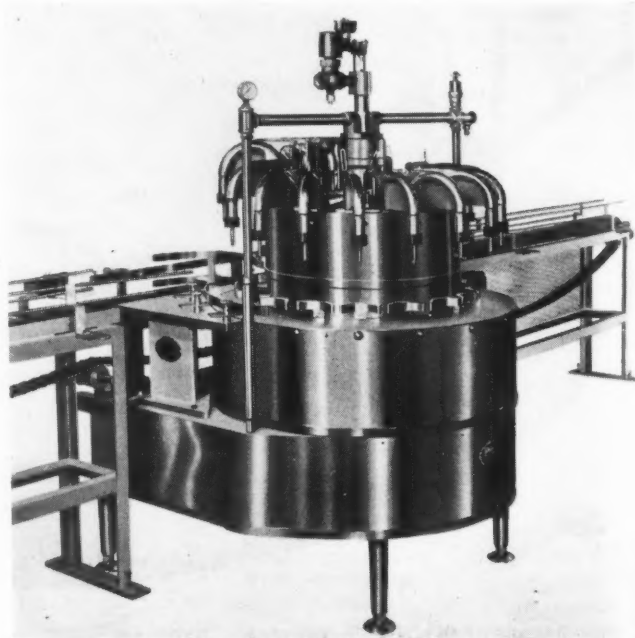
Paisley Products, Inc., Chicago, announces "Cooler-Proof," an improved semi-iceproof bottle label machine glue. Described as a "jelly" glue, it is said to provide a tough, flexible, non-crystallizing film that withstands considerable water immersion and resistance to the damp atmosphere of refrigerators. Its resistance to water, the manufacturer claims, makes possible its use on wet bottles, without subsequent loosening of the labels after the

bottles pass through the machine. It must be applied in a thin film to obtain maximum tackiness to hold paper labels in place on glass, and this distinct advantage results in exceptional mileage and coverage per pound. Due to the present shortage of ice-proof glues, many bottlers are adopting this type of label glue as adequate water resistance for the majority of storage conditions, the makers report, and it handles well on all standard labeling machines usually found in bottling plants.

"Mustik" label adhesive paste, developed by Paper Chemicals, Inc., New York, is said to adhere labels to all types of surfaces such as paper, paperboard, wood, metal, glass, leather, plastics, hard rubber, and porcelain, as well as waxed, varnished and lacquered surfaces. This item, which is available for immediate shipment, is packed in one-quart, one-gallon and eight-gallon containers. The company also announces two carton sealing materials—one, a water-resistant type and the other is claimed to be waterproof.

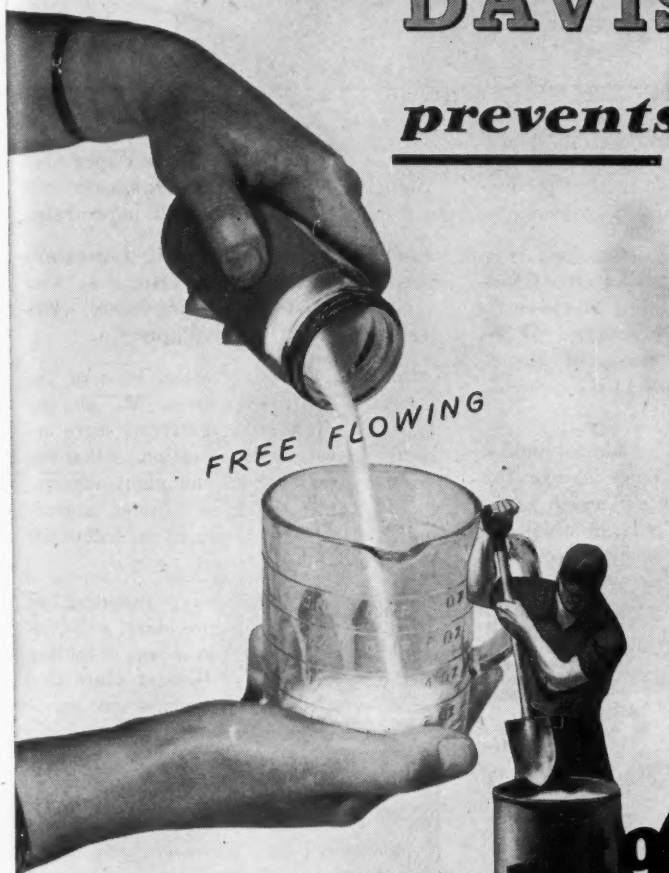
## ROTARY VACUUM FILLER

Designed to set a new standard in filler performance, the Pomona Filler, developed by the Pomona Machine Works, Pomona, Calif., is keynoted by simplicity and flexibility. It operates on the rotary vacuum principle yet maintains simplicity throughout. It will handle containers in sizes from splits to one-gallon, and will bottle any free-flowing, non-carbonated liquid, hot or cold, thin or viscous, at rates from 20 gal. to 60 qts. per min., the manufacturers state. In operation the spouts are lowered by a cam until the rubber collars rest on the neck of the container, thus effecting a vacuum seal. Changeover time from one size to another is accomplished in twenty minutes, and can be effected by unskilled personnel, it is said. One of the outstanding advantages claimed for the machine is that it is self-cleaning and may be completely sterilized in 15 min. without dismantling. Another is that it will maintain filling accuracy on foaming liquids, removing foam from top of fill, automatically returning this excess material to the supply tank. One set of nozzles serves for all sizes of containers. Machine may be conveniently synchronized with the rest of the production line by means of a hand-controlled variable speed drive.



# DAVISON silica gel

***prevents caking***



Caking and lumping in most crystalline and finely powdered materials may be inhibited by the addition of Davison silica gel—less than 1% often proving effective.

Where it is undesirable to mix silica gel with the product—the same result may be obtained by the addition of a bag of Protek-Sorb\* silica gel to the sealed moisture-proof container.



Where caking and lumping are caused by moisture forming a film of saturated solution around individual particles, causing them to adhere, Davison silica gel in most instances will take up this moisture in contact with the material (in a sealed moisture-proof container) and present a dry, free-flowing product to the consumer.

Davison silica gel is chemically inert to most compounds—and is non-toxic. It should not, however, be mixed with the product where a slight turbidity (harmless) is undesirable in the resulting solution.

\*Reg. U. S. Pat. Off.

Caking and lumping make up a vexing problem in many fields—from bulk chemicals in drums to packaged foods, pharmaceuticals and cosmetic powders.

Caking and lumping not only make some products unattractive to the eye but are time wasters in that material must be dug out of containers... it is also difficult to weigh or measure caked material. A free-flowing powder is often required in order to accomplish packaging with automatic machinery. Consult the Davison technical staff, which is at your service, for problems in this field.

THE DAVISON CHEMICAL CORPORATION  
*Progress through Chemistry*



BALTIMORE 3, MD.

Canadian Exclusive Sales Agents for PROTEK-SORB silica gel • CANADIAN INDUSTRIES LIMITED • General Chemicals Division

# Plants and People



*J. J. Keville Jr.*

**John J. Keville, Jr.**, has been named director of product application of the plastics division of **Celanese Corp. of America**. **Frank Sanford** succeeds Mr. Keville as assistant director of sales of the molding materials department.

**Marathon Corp.** has announced the completion of its new bleached sulphate mill at **Marathon, Ont.**, which will produce 300 tons of pulp per day. The project, which has been under way for two years, involved the construction of a whole new town on the shore of Lake Superior, 180 miles east of Port Arthur.

Recently awarded the **Medal for Merit** for war service to the nation were **William E. Levis**, chairman of the board of **Owens-Illinois Glass Co.**; **Harold Boeschstein**, president of **Owens-Corning Fiberglas** and **John D. Biggers**, president of **Libbey-Owens Ford Glass Co.**

**W. S. Hassler** has returned to **Curtiss Candy Co.** as director of packaging after having served in the Navy's packaging program for 3½ years.

**Herbert Kaufman**, formerly with **General Printing Ink Corp.** and more recently with **Ever Ready Label Corp.**, has joined **Hiram Asche Advertising Associates** and will act as a private consultant on packaging and merchandising as well.

In a transaction involving \$2,500,000, **Milprint, Inc.**, acquired the capital stock of **Nicolet Paper Corp.**, West DePere, Wis., glassine producers. **M. T. Heller** succeeds **C. B. Clark** as president of Nicolet.

A report on the company's expansion program was unfolded at the 1946 sales meeting of **Kimberly-Clark Corp.** at Neenah, Wis., revealing a greatly expanded production goal for pulp, paper and cellulose wadding. Comments on specific plants showed a planned increase of 25% above immediate postwar output.

**The American Paper Goods Co.** held a formal opening of its new \$1,500,000 factory in Chicago on October 17. **Edward S. Lancaster**, president, playing host at the celebration, predicted that the

new 120,000-sq. ft. factory would eventually double American's present production of Puritan cups and containers.

**Joseph P. Swift** has been named New York City manager for **Thatcher Glass Mfg. Co., Inc.**, succeeding **Herbert C. Abrahamson**, who has resigned to become vice president in charge of sales of **Neville Island Glass Co.**, Neville Island, Pa.

A recent air shipment of almost half a million paper milk containers inaugurated a new service by **Single Service Containers, Inc.**, Philadelphia, in which air express will be used whenever necessary to relieve an acute shortage.

**Joseph Palma, Jr.**, formerly with **Nichols & Palma** and later with **Product Designers**, has opened a design studio at 6831 W. 34th St., Berwyn, Ill.

**The Dobeckmun Co.**, Cleveland, announces the election of **R. J. Christ** as



*R. C. Betts*

*R. J. Christ*

vice president and West Coast division manager; **R. C. Betts** as vice president and director of technical development; **T. E. Bruffy** as West Coast sales manager, and **Warren E. Dierking** as Los Angeles sales manager. Manufacturing facilities of Dobeckmun are being enlarged by the erection of a new plant in Berkeley, Calif., and an addition to the main plant in Cleveland.

Following his discharge as a major in the Army Air Forces, **T. C. Sheffield** has become West Coast sales representative for the **New England Collapsible Tube Co.**, with offices at 7024 Melrose Ave., Los Angeles, Calif.

**Norman A. Olson** has been transferred to the Chicago sales office of **United Paperboard Co.**

**Brown-Bridge Mills, Inc.**, Troy, Ohio, manufacturers of gummed papers and tapes, is building a 160-ft. extension to its plant which will house new equipment.

**Alan E. Pradt** has been named advertis-

ing director of **Rhineland Paper Co.**, Rhineland, Wis. In addition, he will continue to handle coated paper sales.

**Fred Wohlers** has joined **Container Testing Laboratories, Inc.**, as vice president. He was previously with **The Hinde & Dauch Paper Co.**

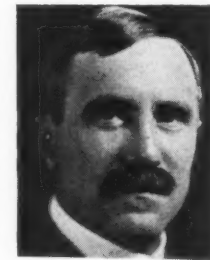
**Allen** and **James Heller**, sons of the heads of **Milprint, Inc.**, **M. T.** and **William Heller**, respectively, have recently joined the organization. Allen will work as assistant to the plant superintendent, **Phil Wohlers**. James, a graduate of M.I.T., will work in the Industrial Engineering Department.

**Norman F. Greenway**, resigning as director and first vice president, will continue as vice president in charge of folding carton operations for **Robert Gair Co.** **Sumner R. Cahoon** becomes vice president in charge of container operations, and **Herman Whitmore**, vice president in charge of boxboard operations.

**D. B. Forrester** has been elected vice president of the **General Box Co.**, Chicago.

**Durez Plastics & Chemicals, Inc.**, has changed the name of its Oil Soluble Resin Division to Protective Coating Resin Division and their Technical Sales Division will be known as the Industrial Resins Division from now on.

**Peter G. Klotz**, vice president in charge of factory operations for **The Hinde & Dauch Paper Co.**,



*Peter G. Klotz*

**Co.**, Sandusky, Ohio, and a pioneer of the industry, has retired after fifty years of service.

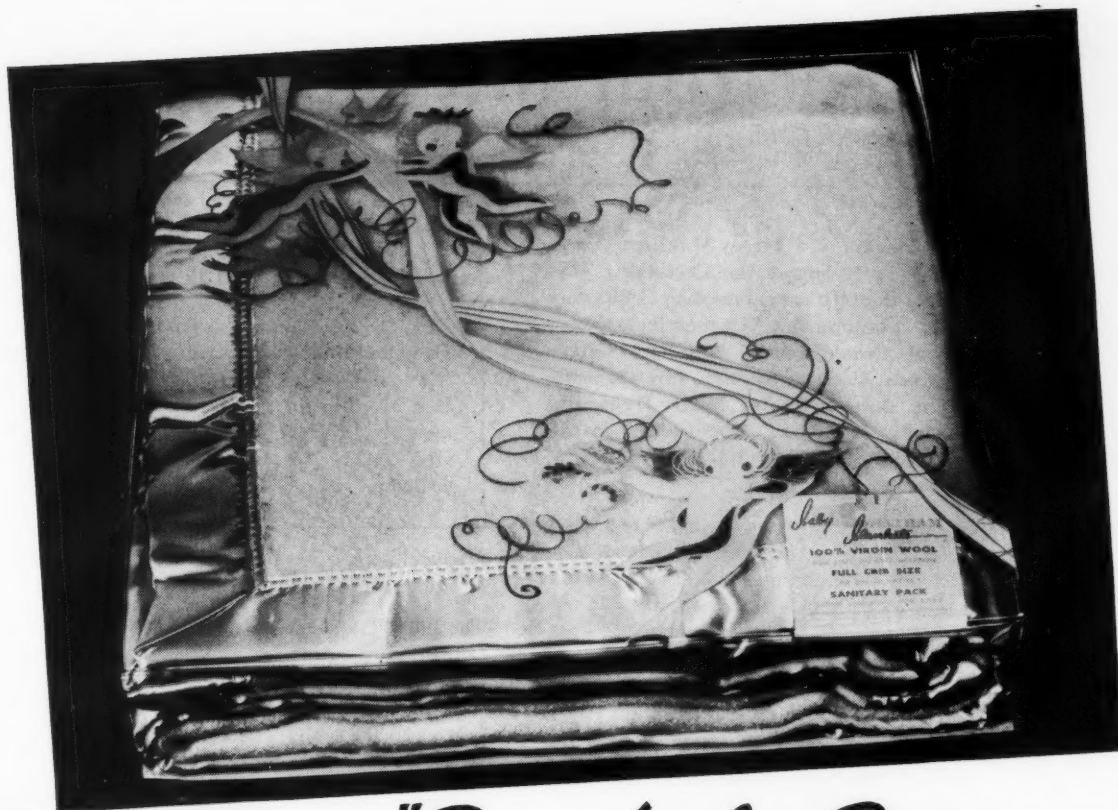
New appointments include **Howard Golden** to the post of general superintendent of fac-

ories and **Delbert C. Valentine** as director of industrial relations.

**Dexter Folder Co.** has sold to the **Boston Stitcher Co.** the sales agreement under which Dexter has, since 1932, handled sales of **Bliss, Latham** and **Boston** wire-stitching machines. Sales and service henceforth will be handled by **Bostitch, Inc.**, Westerly, R. I.

**American Transparent Box Co., Inc.**, has entered the manufacture of folded plastic boxes. The plant is located at 1016 Hamilton (Continued on page 168)





*"Buy, baby, Buy..  
Father's gone a'hunting.."*

The pun is appreciated at Chatham Mfg. Co., for it expresses what happens when fathers, mothers, aunts and uncles . . . go shopping for baby blankets. The clear, transparent acetate box, beautifully decorated in delicate pastels of pink and blue, reveals the soft downy virgin wool blanket, fresh and clean, ready to tuck around baby in crib or carriage.

KELLOGG is doing things with clear, rigid acetate boxes that wise merchandisers are translating into sales increases. Especially interesting are the novel printing effects which have been perfected here.



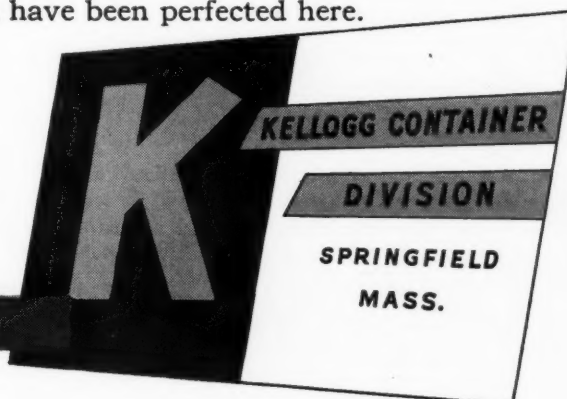
Two new Christmas packages by KELLOGG: the fruit cake by Spaulding Bakeries, Inc., Binghamton, New York; and the "Gift for a Gentleman" by The J. B. Williams Co., Glastonbury, Conn.

UNITED STATES ENVELOPE COMPANY

14 Divisions from Coast to Coast

**U.S.E**

TRANSPARENT PACKAGING



# For Your Information

George W. von Hofe, president of New Jersey Machine Corp., Hoboken, N. J., was elected president of the **Packaging Machinery Mfrs. Institute** at the 14th annual meeting at Shawnee Country Club, Shawnee-on-Delaware, Pa. Vice presidents elected are **Boyd H. Redner**, **Battle Creek Bread Wrapping Machine Co.** and **Oscar W. Wikstrom**, **U. S. Automatic Box Machinery Co.** New directors are: **John P. Corley**, **Miller Wrapping & Sealing Machine Co.**, **E. G. Kuhn**, **Consolidated Packaging Machinery Corp.** and **Carl E. Schaeffer**, **Stokes & Smith Co.**

Packaging men, representing the automotive field, the food industries and other lines of business, inspected packaging materials and methods at the second annual exhibit by **L. T. Swallow & Associates** at the **Wardell-Sheraton Hotel**, Detroit, on Oct. 14-15. Approximately a dozen packaging suppliers were represented.

**"Progress Thru Research"** is the name of a new magazine published quarterly by the research laboratories of **General Mills, Inc.** The publication will carry reports on research activity, new products, methods and scientific data. Complimentary copies are available upon request to the company at 2010 E. Hennepin Ave., Minneapolis, Minn.

For those interested in paper converting, aniline ink printing, rubber plates, etc., **Mosstype Corp.**'s new illustrated brochure on continuous printing will be helpful and informative. Copies may be obtained free of charge from the company at 33 Flatbush Ave., Brooklyn, N. Y.

At the first national **Materials Handling Exposition** to be held at the **Public Auditorium**, Cleveland, Jan. 14 to 17, all phases of materials handling will be considered, with paper industry problems in the forefront. Admission may be obtained from **Clapp & Poliak, Inc.**, 37 Wall St., New York.

The **Fibre Drum Manufacturers Assn.** held its mid-year meeting in Wisconsin, October 9 to 11. Special tours were made through two **Kimberly-Clark Corp.** mills and the **Forest Products Laboratory**. **H. L. Carpenter**, president of the association, stated that several manufacturers have stopped production due to shortages of steel and paperboard while other large plants are operating below capacity.

The **Society of the Plastics Industry** announces the sixth chapter of its **Technical Handbook on "Design of Molded Articles."** It is available in booklet form from the **SPI** offices, 295 Madison Ave., New York, at \$1 per copy or less in quantities.

**Lustra-Cite Industries, Inc.**, 225 W. 28th St., New York, have issued a new catalog describing their plastic displays. Copies are available upon request to the company.

The **Society of Industrial Designers** announces the election of the following officers for the coming year: **Raymond Loewy**, president; **Harold Van Doren**, vice-president; **Egmont Arens**, secretary and **Ray Patten**, treasurer.

**Ivers-Lee Co.**, Newark, N. J., has just published a new 60-page brochure, marking the 25th year of their unit packaging service. The profusely illustrated book, describing **Sanitape-Sealtite** packaging, is virtually a handbook on uses, materials and methods of unit packaging.

The second revised edition of **"Plastics—The Story of an Industry"** is now ready for distribution and is available at nominal cost at **SPI** offices, 295 Madison Ave., New York, N. Y. It is a simple explanation of the resins and chemicals and their

## What's doing

Nov. 25-26—**Packaging Institute**, Stevens, Chicago.  
Dec. 2-4—**Glass Container Mfrs. Institute, Inc.**, (Annual Meeting) Sea Isle Hotel, Miami Beach, Fla.  
Dec. 10—**Liquid Tight Paper Container Assn.** (regular monthly meeting) Waldorf Astoria, New York.  
Dec. 10, 11—**Northwest Frozen Foods Assn.**, Olympic, Seattle.

practical application for the layman. A revised list of approved educational institutions is included.

The Fall 1946 edition of **"Official Container Directory"** containing information on plants, products, equipment and personnel in the fibreboard field is now available at \$3 per copy from **Official Container Directory**, 228 N. LaSalle St., Chicago 1.

The **Frozen Food Foundation, Inc.**, Syracuse, N. Y. has issued a report titled **"Freezing Projects in Progress—1946."** Prepared by **Dr. Jennie McIntosh**, the report details 350 current research projects on freezing, processing, packaging, storage and use of frozen foods. Designed as a clearing house for research activities, it lists organizations, projects and names of individual research workers.

Modifications in German machinery for making cellophane and cellophane sausage casings are discussed in a report by **Worth Wade**, of **Sylvania Industrial Corp.**, now available at \$1 per copy from the Office of Technical Services, Department of Commerce, Washington, D. C.

**Accurate Steel Rule Die Mfrs.**, 22-28 W. 21st St., New York 10, has available for free distribution a **"Die Cutters Manual"** which describes the process of die cutting used by printers, lithographers, paper box manufacturers and other industries.

**Automatic Transportation Co.**, 149 W. 87th St., Chicago 20, Ill., has just published an 8-page, three-color brochure illustrating its new tiering unit which operates as a motorized hand truck.

The **National Assn. of Frozen Food Packers** announces that the first national **Frozen Food Industry Exposition** and Convention will be held in San Francisco at the **Exposition Auditorium** on March 19, 20 and 21. All segments of the industry, including packaging, will be represented.

**Hydry inks**, of interest to the food packaging industry because they are said to be odorless and quick setting, are described in a 16-page booklet available upon request to the **General Printing Ink Co.**, 100 6th Ave., New York.

Packaging comes in for a share of attention in a new book **"Statistical Quality Control,"** by **Eugene L. Grant**, published by **McGraw-Hill Book Co.** and selling at \$5. The statistical method of filling-weight control described in the article **"Filling-Weight Control"** in the October issue of **MODERN PACKAGING** is explained in detail.

For the package user, **"Design for Sales"** presents some useful merchandising information. The illustrated booklet is available upon request to **The Richardson-Taylor-Globe Corp.** at 4501 W. Mitchell Ave., Cincinnati, Ohio.

**J. L. Ware**, packaging engineer with **Sears Roebuck**, has been elected treasurer of the **Industrial Packaging Engineers Assn. of America.**

# *Famous as a* CAMEO

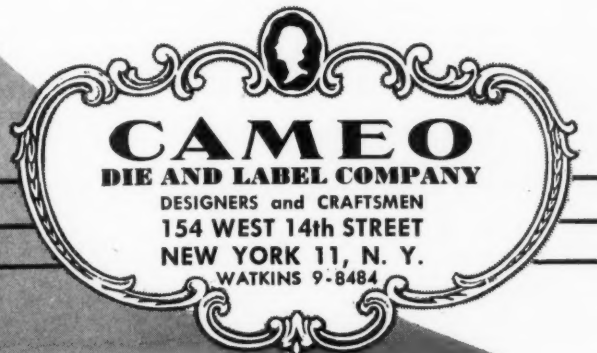


The cameo had its origin in the *scarab*, carved by ancient Egyptian artisans. Used as seals, these early scarabs were ornamentally cut into the shape of the sacred beetle.

In fact, through the centuries cameo work has been a favorite form of ornamentation. No existing form of portraiture is so strong and at the same time so delicate and beautiful as that to be found on an antique onyx cameo.

Just as a cameo calls to mind delicate and beautifully-colored designs, miniature highly-valued works of art—so does the name CAMEO indicate delicate, multi-colored, three-dimensional designs of highest quality for tags, seals, labels and wraps. An engraved cameo is a gem. A die-cut and embossed CAMEO label is a gem of its own kind. Our designers and craftsmen combine their finest skill and long years of experience to turn out a finished product without equal in the die and label field. Fine packaging deserves the very finest in seals and labels—as produced by CAMEO

SAMPLES ON REQUEST



IN CANADA: CAMEO CRAFTS INC.  
157 ST. PAUL ST. WEST, MONTREAL



# U. S. patent digest

edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

**Tape Dispensing Machine**, L. Walters, New York, N. Y. U. S. 2,406,418, Aug. 27. In a tape dispensing machine including a housing formed with a supply roll chamber, a pair of roll supporting rollers in the lower portion, a pair of vertical roll supporting plates, a stationary shaft extending transversely across said chamber and loosely extending through said plates whereby said plates may be selectively spaced from each other.

**Container**, H. Sebell, Marblehead, Mass. U. S. 2,406,568, Aug. 27. A container having an open top, thereby forming a top edge to the container body, said body being provided with an exterior downwardly facing shoulder below said top edge, and a closure for the open top comprising a cap member and a band member, said band member encircling the upper portion of the body and having its lower end bent inwardly underneath said shoulder, and having a sealing flange; said cap being formed with a peripheral skirt portion, and equipped with a sealing strip embracing the two sealing flanges and holding them tightly clamped.

**Liquid Containers Such as Those of Electric Accumulators**, B. J. Davies (to United Ebonite & Lorival Ltd., Little Lever, near Bolton, England). U. S. 2,406,592, Aug. 27. The method of producing a lined ebonite container in which a core of external shape corresponding to the interior of the container is covered with a thin layer of vulcanizable soft rubber mixture which is then covered by a layer or layers of paper coated, though not impregnated, with a solution of vulcanizable rubber mix, and dried, the walls of the container which are made of a vulcanizable ebonite mixture being then built upon the paper covering.

**Trimming Machine**, H. Hacklander (to The Singer Mfg. Co., Elizabeth, N. J.). U. S. 2,406,602, Aug. 27. In a trimming machine, a pair of opposed and relatively yieldable outer and inner feed-cups disposed for rotation about vertical axes, means for rotating said feed cups, and equipped with ledger blade with cutting edge, and a co-acting movable cutting blade.

**Detachable Cover for Containers**, O. Rasor, Portland, Oregon. U. S. 2,406,636, Aug. 27. A fastening device for a tubular wooden container having a removable end member and a cylindrical side, an annular end ring having an inwardly extending flange and a lateral flange joined therewith, an annular wedge member adapted to split one end of said cylindrical side and to be seated therein, the periphery of said end member and the inner surface of the lateral flange of the end ring diverging toward the inwardly extending flange of the end ring.

**Bag**, C. V. Brady (to Bemis Bro. Bag Co., St. Louis, Mo.). U. S. 2,406,660, Aug. 27. A unitary article of manufacture consisting in a bag for packaging comprising an inner longitudinal flat sleeve which is longitudinally gusseted at its edges, and an outer longitudinal

flat cover, each being of tubular form, certain ends of said sleeve and cover being adjacent one another, a common sewed seam closing both of said adjacent ends, the width of the flat cover being substantially greater than that of the flat gusseted sleeve.

**Bag Closure**, C. V. Brady (to Bemis Bro. Bag Co., St. Louis, Mo.). U. S. 2,406,661, Aug. 27. A closure tie comprising a length of bindable wire having eyes at its ends, said eyes, upon looping the wire around an article, being adapted to be adjoined for pulling and twisting, thereby constricting the resulting loop about the article.

**Fluid Tank**, R. B. Gray & J. C. DeWeese (to The Glenn L. Martin Co., Baltimore, Md.). U. S. 2,406,679, Aug. 27. A self-sealing hydrocarbon fuel tank comprising a metal frame and a flexible cell within said frame, the wall of said cell being free of the frame and being formed of an inner layer of fabric impregnated with artificial rubber, a second layer of artificial rubber adhesively secured on the outside of said first layer, a third layer of crude rubber adhesively secured on the outside of said second layer, and a fourth layer of soft vulcanized rubber adhesively secured on the outside of said third layer.

**Foldable End Wall Carrier and Carton**, W. A. Ringle (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,406,711, Aug. 27. In a folding carton or carrier, a central wall and two side walls, the said side walls being articulated to the central wall along parallel score lines, one on each side of the central wall, two parallel pairs of straight slits being formed in said side and central walls, each of said slits beginning intermediate one of the side walls.

**Beverage Bottle Carrier**, M. Fox, Dansville, N. Y. U. S. 2,406,756, Sept. 3. A device comprising wire end frames substantially square shaped with rounded corners, a sheet metal bottom having its opposite ends rolled backward upon themselves in order to be attached to the bases of said frames, sheet metal sides having their opposite longitudinal edges rolled back upon themselves in order to be secured to longitudinally extending wire members.

**Container Made of Paper and Method of Making the Same**, M. E. Gazette (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,406,758, Sept. 3. A fibre container comprising a tubular inner fibre body, a liner within said fibre body covering the entire inner face thereof and extending outwardly over the ends of the inner body, a closure disk for each end of said container body, disks being dimensioned so as to overlie the ends of inner fibre body.

**Means for Capping Tubing**, M. Curtze (to The Scholl Mfg. Co., Inc., Chicago, Ill.). U. S. 2,406,745, Sept. 3. A device for temporarily capping tubing, including a sheet of material having an adhesive surface for application directly to the tubing over the end of a length of tubing,

and a relatively stiff disk carried by said sheet for insertion in the end of the tubing when the sheet is applied.

**Device for Vacuum Sealing Containers**, E. B. Hughes (to Bernardin Bottle Cap Co., Inc., Evansville, Ind.). U. S. 2,406,771, Sept. 3. A device for sealing a screw-cap container having a reduced threaded neck and a shoulder beneath the neck, the combination of a portable inverted cup-shaped housing provided with a chamber adapted to receive the neck with a cap thereon, and means for sealing the housing on the shoulder.

**Method of Closing Bag Tube Ends**, D. Belcher (to Bemis Bro. Bag Co., Minneapolis, Minn.). U. S. 2,406,791, Sept. 3. The method of closing and sealing an open end of a flexible walled tubular bag body, which consists in pressing the walls of the bag end into flat-wise relation with the edge walls intucked between the side walls, whereby the flattened bag end is provided at each side edge with juxtaposed corners each comprising at least two plies, adhering together the plies of each corner, and folding juxtaposed corners against their respective side walls.

**Lithographic Printing Ink**, D. J. Bernardi & B. T. Florence (to Interchemical Corp., New York, N. Y.). U. S. 2,406,795, Sept. 3. A lithographic printing ink which shows considerably reduced greasing as compared to a similar ink made with bodied linseed oil, comprising pigment dispersed in a vehicle, the essential basis of which is the ester of pentaerythritol and tall oil.

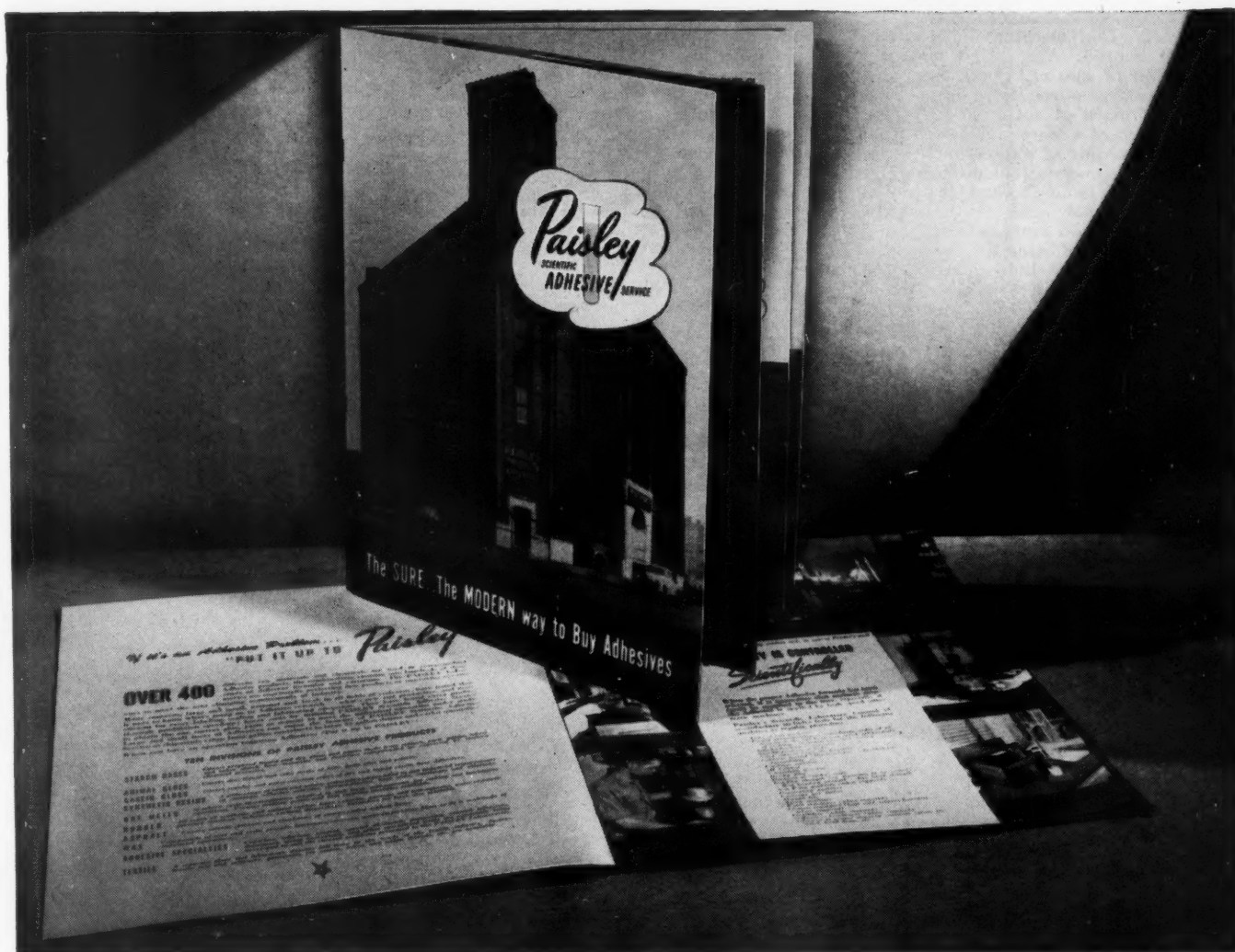
**Printing Ink**, P. Whyzmuzis & H. Linkletter (to Interchemical Corp., New York, N. Y.). U. S. 2,406,878, Sept. 3. A printing ink characterized by improved drying when exposed to ultraviolet energy, comprising pigment dispersed in a vehicle capable of being dried by ultraviolet energy and containing a binder conjugated system of double bonds.

**Adhesive Tape Container with Nesting Feature**, W. F. Punte (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,406,900, Sept. 3. A container for an adhesive tape spool comprising a cylindrical body portion open at both ends and having the wall thereof at its upper end rolled outwardly into a hollow bead and having its wall at the lower end thereof offset inwardly and inwardly rolled into a hollow bead, said inwardly offset portion being dimensioned so as to frictionally engage within the open end of a companion container for the securing of one container to another in stack.

**Weighing and Dispensing Apparatus**, R. E. Williams & L. J. Nowak, Jr. (to B. F. Gump Co., Chicago, Ill.). U. S. 2,406,934, Sept. 3. In a dispensing and weighing apparatus means for feeding material into a weighing area, means at said area for weighing the fed material, means for discharging a weighed quantity of material from said weighing means into a dispensing area.

**Antifungus Wrapper, Etc.**, G. C. Borden, Jr., & K. R. Karlson (to Riegel Paper Corp., New York, N. Y.). U. S. 2,406,990, Sept. 3. An anti-fungus wrapper made of moisture-resistant coated paper, having as an effective high boiling anti-mycotic agent a small per cent of a lower dialkyl dichloro succinate incorporated in the coating, anti-mycotic agent vaporizing over a prolonged period of time.

**Thick Pasting Starch and Method**, L. O. Gill & J. W. McDonald (to A. E.



## SEND FOR OUR NEW EIGHT-PAGE ADHESIVE FOLDER

Everyone uses adhesives! From the simple white Library Paste of your kindergarden days, to the highly developed formulas for modern industry, adhesives are used universally. Yet how few understand even the elementary principles of their production.

We've prepared this attractive new eight-page folder to help industrial users and buyers of adhesives to gain greater knowledge of this increasingly important subject. For buying *efficient* adhesives is no longer a simple matter. Depending upon the

operation involved, it may require all the skill and resourcefulness of "Paisley Scientific Adhesive Service".

So, avail yourself of the opportunity to benefit by the valuable adhesive information this folder contains. Learn more about the Paisley way of creating, producing, and controlling a modern adhesive formula. Will you use the coupon provided here, in sending for your copy? Be sure to tell us the **TYPE** of business you conduct. This information will permit us to include other valuable data pertinent to your business.

### ATTACH THIS COUPON TO YOUR LETTERHEAD AND MAIL!

Gentlemen:

Please send us a copy of your new, free, eight-page folder entitled "The SURE... The MODERN way to Buy Adhesives". I am indicating below the kind of business we conduct. Include any other information on adhesives that specifically apply to our business.

FIRM \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

TYPE OF BUSINESS \_\_\_\_\_

## PAISLEY PRODUCTS INCORPORATED

Manufacturers of Glues, Pastes, Resin Adhesives, Cements, and Related Chemical Products

1770 CANALPORT AVE., CHICAGO 16, ILL. ★ 630 W. 51st STREET, NEW YORK 19, N. Y.



Staley Mfg. Co., Decatur, Ill.). U. S. 2,407,071, Sept. 3. A process of making a composition of matter, which comprises reacting native starch in aqueous suspension having a pH of 1.5 to 7.0 with 0.005 to 2.0% of a material selected from the class consisting of water soluble urea-formaldehyde condensation products and water soluble melamine-formaldehyde condensation products based on the weight of the starch, said composition having the characteristic of being thicker pasting with hot water than the original starch and forming therewith a smooth homogeneous paste.

**Hand Grip and Closure for Cartons,** R. V. Thompson, Indianapolis, Ind. U. S. 2,407,111, Sept. 3. A carton having four angularly related walls each terminating in a tab defined by a transverse fold line, the fold lines in two opposite walls defining oppositely facing tabs lying substantially in a common plane, the fold line in a third wall lying in a plane parallel with said common plane and disposed farther from the termini of said tabs.

**Envelope Machine,** J. L. Oberender (to Oles Envelope Corp., Baltimore, Md.). U. S. 2,407,174, Sept. 3. In an envelope machine, a sheet turning section comprising a pair of rolls and means to rotate them to continue forward and turn the sheet in its own plane, means to feed a sheet thereto and to receive a sheet therefrom.

**Wrapping Machine,** C. J. Malhiot (to E. B. Redington Co., Chicago, Ill.). U. S. 2,407,313, Sept. 10. A packaging machine comprising a package conveyor having aligned pockets for conveying packages from a receiving station to a discharge station, packaging mechanism associated with the conveyor and engageable with the packages while the same are being transported between said stations. The wrapping machine comprising a first conveyor for conveying a series of articles to be wrapped, a second conveyor for receiving the articles first conveyed.

**Automatic Cutter,** J. R. McLaughlin (to Tampax Inc., New York, N. Y.). U. S. 2,407,316, Sept. 10. An apparatus for severing a continuous strip embodying opposed feed rollers adapted to continuously advance the strip, one of said rollers movable bodily away from the other roller; pivoted arms upon which said movable roller is mounted; an apron movable in the direction of travel of the strip; means co-acting with said apron to maintain the strip in frictional contact therewith and also to tighten the strip between said apron and said rollers during the cutting operation of the severing devices.

**Pad Holding and Feeding Device,** M. Dessaur, Bronx, N. Y. (to Murray Dessaur & Richard D. Gale). U. S. 2,407,404, Sept. 10. A steel wool pad holding and feeding device comprising an elongated hollow cylindrical container open at both ends, the inner surface thereof at the upper end only being threaded, an externally threaded plunger cooperating with said threaded surface, the outer pad protruding outward from the lower end of said container, said plunger having rotational movement relative to said container to cause the lowermost pad to protrude from lower end of the container as the steel wool extending from the container is consumed.

**Dispensing Package,** J. S. Graziano, Joliet, Ill. U. S. 2,407,415, Sept. 10. A dispensing package comprising an integral major container including upper and lower separable sections, said sections being severable along a horizontal score line intermediate the top and bottom of the container, an open top supplemental container is slidably positioned in the major container, and operable through the medium of an object inserted through the bottom opening of the major container.

**Can Punch and Closure,** J. F. Markley, Camden, N. J. U. S. 2,407,434, Sept. 10. A combination can punch and closure comprising a clamp attached to the can, one end of said clamp provided with a depending right angular flange partly bent back upon itself to provide a can engaging lip, the other end of said clamp provided with a depending right angular flange of a greater length, a winged screw threadably received in last named flange having engagement with wing to flex said wing against the side of can and firmly hold clamp, and flexible means pivotally connected with said clamp, so when pressure is exerted forms perforating means to can.

**Liquid Container,** L. Shakesby & S. H. Smith (to Imperial Chemical Industries, Ltd., Manchester, England). U. S. 2,407,455, Sept. 10. A liquid container which includes an envelope of flexible non-metallic material, a plurality of supporting members inserted between and secured to oppositely disposed portions of the envelope, supporting members each comprising a flexible tubular core of spirally wound non-metallic material.

**Container,** B. M. Williams (to Gaylord Container Corp., St. Louis, Mo.). U. S. 2,407,463, Sept. 10. A carton comprising a body having flaps that are overlapped and secured together to form end walls, said end walls having hand holes in the outermost flaps, means for spacing the overlapped flaps, and a cover having locking tongues depending therefrom.

**Method and Apparatus for Making Caps or Covers,** L. G. Zesbaugh (to Perma-Seal Closure Co., a corporation of St. Paul, Minn.). U. S. 2,407,465, Sept. 10. A method of making a cap or cover for a container for food which consists in pressing a circular flat blank of sheet material such as cardboard at its central portion to form a cup therein with a flat circular rim.

**Bottle Holder and Carrier,** W. A. Bertram, Chicago, Ill. U. S. 2,407,529, Sept. 10. A bottle holder and carrier comprising two juxtaposed face-to-face sheets slightly shiftable on each other, said sheets having overlapping openings forming passages there through expandable when the sheets are shifted into one position to enable a bottle head and neck to pass through the passage, and contractable when the sheets are shifted into another position to grip the neck and prevent withdrawal of the bottle.

**Apparatus for Delivering Elongated Cylindrical Articles,** M. S. Gettig & H. Engelbaugh (to The Youngstown Sheet & Tube Co., Youngstown, Ohio). U. S. 2,407,638, Sept. 17. Apparatus for consecutively delivering elongated cylindrical articles from a bundle thereof comprising horizontally inclined article supporting means, horizontally inclined delivery means extending forwardly therefrom but at a higher level with their rear

ends overhanging the supportings, and equipped with stop means.

**Adhesive Tape Dispenser and Applier,** A. A. Anderson, R. Township (to Minnesota Mining & Mfg. Co., St. Paul, Minn.). U. S. 2,407,641, Sept. 17. In an object-powered-pressure-sensitive adhesive tape dispenser and applier, means for withdrawing tape from a roll and advancing it towards the applying position, and means for severing the tape prior to application, and means responsive to motion of an object to which tape is being applied for directly transmitting power furnished by the moving object to the said tape withdrawing and advancing means while such object is in motion.

**Method and Apparatus for Sealing Cartons,** R. Guyer (to Waldorf Paper Products Co., St. Paul, Minn.). U. S. 2,407,781, Sept. 17. A container comprising four panels foldably connected together to form a top panel, a bottom panel and side wall panels, a fifth panel foldably secured to one of said panels, and adapted to overlap said top panel and be adhered thereto, and equipped with heat-sealable coating on the inner surface of said container panels.

**Bottle Carrier,** W. A. Ringler (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,407,798, Sept. 17. A blank for a bottle carrier formed of bendable sheet material such as boxboard, said blank having a bottom panel, end wall panels articulated thereto, said end wall panels being of sufficient depth to retain bottles against toppling, and equipped with partition panels.

**Lined Carton,** H. J. Stotter, Shaker Heights, Ohio. U. S. 2,407,802, Sept. 10. A flat tubular four-sided carton blank folded along two parallel longitudinal score lines, a heat-sealable liner sheet adhered to the inner surface, and having a longitudinal seam in said liner, said seam being comprised of heat sealed edges.

**Closure for Cartons,** E. J. Biskamp, San Antonio, Texas. U. S. 2,407,865, Sept. 10. A blank for forming foldable boxes of the tubular type, said blank comprising side and edge panels and end flaps, said side and edge panels being separated from each other and from said end flaps by fold lines, one of said edge panels having at one end a rectangular closure section defined on two sides by perforated lines.

**Dispensing Box or Container,** K. T. Buttery (to Sutherland Paper Co., Kalamazoo, Mich.). U. S. 2,407,919, Sept. 17. A dispensing carton comprising a top wall, and end walls integral therewith, the top wall having a central fracturing line extending from end to end thereof and comprising spaced relatively long slits and relatively short strips between said long slits.

**Paper Yarn,** K. Hamilton (to Mohawk Carpet Mills, Inc., Amsterdam, N. Y.). U. S. 2,407,926, Sept. 17. A yarn which comprises a strip of paper containing a substantial quantity of water distributed through the paper, the strip being formed with random generally longitudinal folds and twisted about its longitudinal axis, and a substantially continuous coating impenetrable by the water covering the outer surface of the twisted strip, the water within the paper making the twisted coated strip flexible and the coating both adding to the wet strength of the twisted strip and preventing the escape of water therefrom.



# Bringing more sun to shut-ins...



**H**ARD to believe that the young nurse is adjusting a window glazed with a *packaging material*, isn't it?

Yet that's just what she's doing . . . Double layers of Kodapak II, thin-gauge, acetate butyrate sheeting, laminated with coarse-mesh cotton scrim, produce a lightweight, long-lasting, weather-resistant type of material that transmits a wide range of the sun's health-giving ultraviolet rays.

Result: a glazing specially adapted for use in hospitals, in homes and offices, and on farms.

Choice of Kodapak II for this purpose is proof again of this product's great versatility . . . of the wide range and variety of its uses.

Although the current supply of Kodapak and Eastman Acetate Sheet is not sufficient to meet the steadily increasing demand, the Kodak Transparent Packaging Laboratory in Rochester is available to demonstrate fabricating methods.

**Cellulose Products Division  
Eastman Kodak Company, Rochester 4, N. Y.**

**KODAPAK AND EASTMAN ACETATE SHEET**

**Attract . . . Protect . . . Sell**

**Kodak**

**Web of Stretchable Material and Bag Made Therefrom**, W. W. Rowe (to Cincinnati Industries, Inc.). U. S. 2,405,521, Aug. 6. A web of material stretchable on its longitudinal and lateral axes and comprising a plurality of layers of stretchable paper, said paper characterized by a single set of lines of rugosities imparting the stretchability thereto, said lines being located aslant to said axes, and the said lines being oppositely disposed in at least two of said layers.

**Folding Box**, G. J. Evans, Buffalo, N. Y. U. S. 2,405,564, Aug. 13. A folding box comprising a central panel having longitudinal edges on its opposite sides and transverse edges at its opposite transverse ends, vertical side walls connected with the opposite longitudinal edges of the central panel and each having vertical ends, vertical end walls, each of which includes a pair of end wall panels having outer vertical ends connected with corresponding vertical ends of the side walls to form a corner of the box, and provided with locking lip and tabs in form of a hook, which prevents said tab from being pulled open through said slits.

**Moistureproof Device**, M. A. Shiro (to the United States of America as represented by the Secretary of War). U. S. 2,405,614, Aug. 13. A pressure equalizing device comprising an enclosed compartment, an aperture through a wall of said compartment, a substantially flat annular frame disposed about said aperture and outside said wall, a perforated grill sustained by said frame and extending across said aperture, the frame and grill being substantially flush with the exterior of said wall, a flexible sack, and opening of said sack being disposed within said compartment and opening in sack being in register with said aperture and the mouth of said opening abutting the inner surface of said wall, an annular washer encircling said sack, and perforated guard surrounding said sack, the mouth of the sack is pressed between the wall and washer to form a tight seal between the mouth of the sack and wall.

**Receptacle Cover**, A. Otteson, New York, N. Y. U. S. 2,405,667, Aug. 13. A receptacle cover having a downwardly directed annular channel formed of an outer wall which continues into a base wall which in turn continues into an inner wall, and having an annular score line within said channel in the vicinity of the junction of said base wall and inner wall so that the bottom portion of the inner wall may be forced inward relative to said outer wall for opening said cover.

**Method of Forming Seals**, C. A. Southwick & A. F. Staglemeier (to General Foods Corp., New York, N. Y.). U. S. 2,405,675, Aug. 13. The method of forming a seal between adjacent flat sheets of packaging material having opposed surfaces of thermoplastic sealing material which comprises clamping said sheets together along the edges of the zone to be sealed, and then admitting a hot fluid under pressure to said change to heat and press said surfaces together.

**Container**, B. Bogoslawsky, Jackson Heights, N. Y. U. S. 2,405,628, Aug. 13. A container comprising a tubular member, a tubular collar telescoped over said tubular member and rotatable with respect thereto, the upper edge of said collar lying in substantially the same plane as the upper edge of said tubular member, a tubular piece of flexible material forming a closure for one end of said container, and when rotated thereon for opening.

**Taping Machine**, G. Fulfer, San Francisco, Calif. U. S. 2,405,742, Aug. 13. A taping machine comprising a staff; a tape reel and a traction roller on said staff; a plaster tank on said staff between said reel and roller and having an outlet opening; a chute surrounding said opening and comprising a trough-shaped cover movable relative to said opening; and a lip extending from the upper end of said opening and into said cover.

**Display Holder**, J. C. Feeney & W. B. Banks (to The Lord Baltimore Press, Baltimore, Md.). U. S. 2,405,780, Aug. 13. The combination of a sheet-like base having an elongated aperture therein, an article in said aperture, the length of said aperture being substantially equal to the length of the article and the width of the aperture being less than the maximum width of the article to support the article resting therein and a loop integral with said base at the sides of the aperture adapted to be bent outwardly in a plane substantially at right angles to the base and adapted to extend over the article in the aperture to hold it in position therein.

**Container**, P. C. Gaylord (to Greif Bros. Cooperage Corp., Cleveland, Ohio.) U. S. 2,405,823, Aug. 13. A container having a fibrous laminated body with an open end, a compressible gasket of twisted fibrous material fastened by stitching to the outer wall of the body slightly below and in mutual parallelism with the rim edge of said open end.

**Method of Producing Threaded Spiral Tubes**, R. B. Smith & M. W. Latimer (to Hercules Powder Co., Wilmington, Del.). U. S. 2,405,909, Aug. 13. A method for the production of threaded spiral tube on a continuous spiral tube machine which comprises continuously fed strip material onto a rigid mandrel and into engagement with a driven endless belt which is obliquely trained around said mandrel and which winds and advances the strip material in the form of a spiral tube.

**Pressure Sensitive Adhesive**, R. J. Priepke, J. H. Emigh & C. O. Pike (to Industrial Tape Corp., a corporation of New Jersey). U. S. 2,405,926, Aug. 13. A solvent spreadable, internally pressure-sensitive adhesive composition comprising a predominating portion of a condensation product of castor oil with maleic half ester of a monohydric alcohol having a boiling point above 150 deg. C. and a minor portion of a compatible cohesive agent.

**Method of Manufacturing Infusion Packages**, H. O. Irmscher (to National Urn Bag Co., Inc., Long Island City, N. Y.). U. S. 2,406,018, Aug. 20. In the method of manufacturing the steps of continuously moving and folding a strip of heat sealing bag sheet material to form spaced apart filled section units with closed bottoms, arranging a string in wave-like configuration with alternate loop and bight portions.

**Siftproof Carton**, T. F. Cass, Jr. (to Container Corp. of America, Chicago, Ill.). U. S. 2,406,061, Aug. 20. A folding carton formed from a sheet of paper-board having a sheet of lining material adhesively secured to its entire inner surface including a plurality of adjacent side wall panels and a plurality of closure flaps integrally joined to said panels along a score line.

**Apparatus for the Manufacture of Convolute Rods**, H. A. Perkins (to

Setter Bros., Cattaraugus, N. Y.). U. S. 2,406,033, Aug. 20. In a candy stick machine, means for convoluting paper actions to form loosely convoluted rolls, means including a rotatable paper supply roll for supplying and feeding said section to the convoluting means.

**Fuel Container**, D. J. Sullivan (to E. I. duPont de Nemours & Co., Wilmington, Del.). U. S. 2,405,986, Aug. 20. A self-sealing fuel container, the walls of which comprise flexible sheet material comprising a plurality of adherent laminae, said laminae comprising an outer layer of raw rubber adapted to swell on contact with a hydrocarbon liquid which mechanically expands to close openings caused by perforations and which comprises plasticized neoprene.

**Container Closure**, E. G. King (to Armstrong Cork Co., Lancaster, Pa.). U. S. 2,406,227, Aug. 20. A closure comprising a shell and a sealing element including a cured alkyl resin consisting of the cured condensation reaction product from 36.5 to 219 grams of a saturated aliphatic dibasic acid containing 4 to 10 carbon atoms.

**Protected Blade and Package**, J. Mures (to Gillette Safety Razor Co., Boston, Mass.). U. S. 2,406,242, Aug. 20. A safety razor blade centrally slotted having shoulders defining unsharpened end portions in the blade, in combination with a protecting wrapper having elongated leaves folded transversely upon said shoulders.

**Berry Box or the Like**, W. A. Ringler (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,406,254, Aug. 20. A square blank for a berry box provided with cut and score lines defining a square main panel canted with respect to any side edge of the blank, side wall panels articulated to the side edges of the said bottom panel, panels having a depth from, top to bottom not greater than the depth of the bottom panel.

**Automatic Container Filling Device**, T. A. St. Clair, C. F. Sievers & A. R. Olson (to Phillips Petroleum Co., a corporation of Delaware). U. S. 2,406,263, Aug. 20. A device comprising a sleeve having a seating member, a valved passage in said sleeve and seating member, an actuator for said sleeve having a push rod slidably connected to said sleeve, and a spring for normally holding said rod in retracted position.

**Container Closure**, E. G. King (to Armstrong Cork Co., Lancaster, Pa.). U. S. 2,406,298, Aug. 20. A closure comprising a shell and a sealing element including a cured alkyl resin consisting of the cured condensation reaction product of from 146 to 365 grams of a saturated, aliphatic dibasic acid containing 4 to 10 carbon atoms, and one gram molecular weight of an unsaturated aliphatic dibasic acid containing from 4 to 10 carbon atoms.

**Sealed Moistureproof Paper Package**, J. W. Lively, San Jose, Calif. U. S. 2,406,301, Aug. 20. A composite sealed moistureproof paper package, comprising an inner wrapper sheet folded over and completely enclosing the commodity, and an outer bag enclosing said wrapped commodity, opposite bag walls at the upper end thereof being coated on their inner surfaces with adhesive and provided with spaced intermediate longitudinally disposed slits for a portion of their extent.

not ONE, but 3

*Packaging materials  
that hit the bull's eye*

◆ **VELVA:** A post-war fabric! High synthetic pile simulating velvet and velveteen. Resembles fine cut velvet when embossed. Complete color range. 40 inches wide.

◆ **FABCOSE:** Lustrous vinyl film laminated on fibre. Can't be beaten for toughness and durability. Economical, too! Complete range of solid and two-tone colors. Also printed patterns. 38 inches wide.

◆ **SUEDETTE:** Luxury and feel of velvet—economy of paper! Tried and approved by leading packaging companies all over the world. Complete range of colors, plain and embossed patterns. 40 inches wide.

answers to your  
packaging problem

Also in stock:  
SATIN RIBBONS  
FIBERGLAS CLOTHS  
RAYONS  
COTTONS  
FANCY PAPERS  
etc.



INQUIRIES  
INVITED

**JAMES A. COLE COMPANY, INC.**

235 FOURTH AVENUE, NEW YORK CITY 3, N. Y.

GRamercy  
3-5151

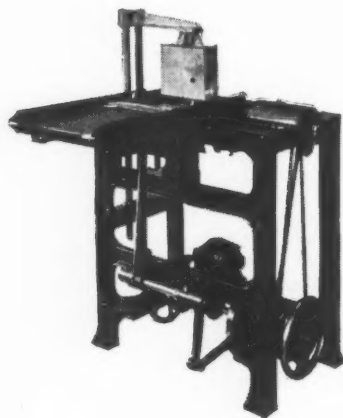


# Are You Interested in Reducing Packaging Costs?

Reduce your packaging cost and increase profits by producing your packages as inexpensively as possible—on PETERS economical set-up and closing machines.

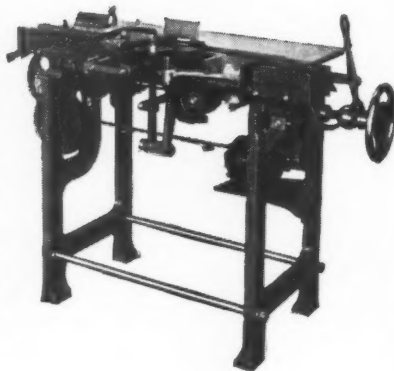
These machines are doing a big job in many packaging departments—eliminating hand labor—saving floor space and speeding up production.

Send us samples of the cartons you are using. Let us make recommendations for your specific requirements.



This PETERS JUNIOR CARTON FORMING & LINING MACHINE sets up 35-40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to handle several size cartons.

This PETERS JUNIOR CARTON FOLDING & CLOSING MACHINE closes 35-40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made to handle several different size cartons.



**PETERS MACHINERY COMPANY**  
GENERAL OFFICE AND FACTORY  
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

## Plants and people

(Continued from page 158) St., Philadelphia, Pa., and sales offices are at 224 Tompkins Ave., Brooklyn, N. Y.

Nearing completion is a new 80,000-sq. ft. **Arvey Corp.** plant at 3468 N. Kimball Ave., Chicago, for finishing operations on point of purchase advertising displays.

A new 102,500-sq. ft. building is now under construction to house the packaging division of **Cupples-Hesse Corp.**, St. Louis, Mo.

**M. R. Mostman** has been appointed New York merchandising manager of **Zellerbach Paper Co.**, with offices at 122 E. 42nd St.

**Diamond Straw & Machine Co.**, manufacturers of spiral wound tubes and machines, have moved to their own building at 32 W. 18th St., New York.

**Container Engineering Service, Inc.**, Erie, Pa., is a new organization supplying packaging and materials-handling engineering service and offering a line of materials and supplies. Officers are **J. C. Taylor**, president; **Norman Hutton**, vice president, and **Ralph Hutton**, secretary.



B. Verson

**Shellmar Products Corp.** announces the appointment of **Ben Verson**, now treasurer of the company, to the position of general manager, **Shellmar Division**, a position which has recently been unassigned. Mr. Verson came to Shellmar from the Walton School of Commerce in 1929. His election came shortly after the consolidation of Shellmar and **Self-Locking Carton Co.**

**B. F. Goodrich Co.**, Akron, Ohio, announces the creation of a new plastics production division and the appointment of **Bert S. Taylor** as factory manager.

**Shinners Packaging**, Springfield, Mass., announces the addition to the firm of **A. J. Homon, Jr.**, formerly of **Landers, Frary & Clark**, and **Anthony Naiden, Jr.**, recently color and design consultant of **Westinghouse Electric Co.**

The "Phoenix Flame," widely known publication of the **Phoenix Metal Cap Co.**, Chicago, recently celebrated its twentieth birthday. This publication, every issue of which contains illustrations of outstanding packages, has been under the direction of **Harry Higdon** since its inception, and has been a consistent winner of awards for excellence and attractiveness.

**Mayo Larkin** and **Lou Glassman** have opened offices at 294 Washington St., Boston, Mass., for industrial and package design work.

**C. J. Hoffman** and **W. J. Randall**, both widely experienced in the packaging field, have been appointed packaging engineers for **Shumann Equipment Co.**, Pittsburgh, Pa.

**A. J. K. Co.**, manufacturer of plastic cosmetic and drug containers, is relocated in a new plant in Colchester, Conn. New York offices are at 501 Madison Ave.

**Oneida Paper Products, Inc.**, New York, marks its 20th anniversary with the opening of a new \$500,000 parent plant in Clifton, N. J.

**Oakes & Co.**, Chicago marketing and merchandising firm, has established a product design and development division headed by **G. Henry Van Veen**.

**John Clark**, New England sales representative for **McLaurin-Jones Co.**, Brookfield, Mass., died on September 24 at Holyoke Mass., at the age of 60.

PAPERBOARD

HEAT-SEALING COATED MATERIALS

PAPER

WAXED PAPER

LAMINATED AND COATED GLASSINE

LAMINATED PAPER

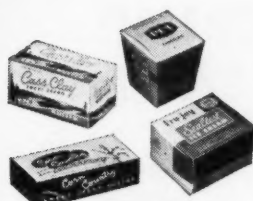
**From this  
Complete Range  
of Materials . . .**

TRANSPARENT FILM

ALUMINUM FOIL

LAMINATED PAPERBOARD

**Marathon builds  
the package  
to fit the job!**



FOR ICE CREAM  
AND BUTTER



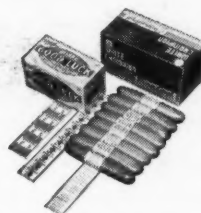
FOR CONFECTIONS  
AND TOBACCO



FOR BAKED GOODS



FOR PROCESS CHEESE



FOR MEAT PRODUCTS



FOR DRIED FOODS



FOR PRE-MIXED FOODS



FOR FROZEN FOODS

# MARATHON

MARATHON CORPORATION

MENASHA,  WISCONSIN

## HEAT SEAL-IT MACHINES



The first "low cost" bag and envelope making machine ... no experience required for operation. Will make bags from 2" up to 6" wide and from 2" up to 12" long. No electric motor required. Automatic thermostatic control of all heating surfaces. Quick delivery. Write for complete information.



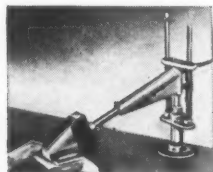
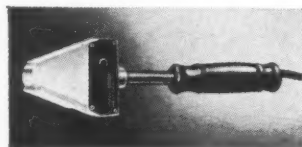
### "CRIMP SEAL-IT"

The New  
All Purpose  
Heat  
Sealing  
Machine

Latest development in compact, low cost bag sealing equipment. Applies a perfect seal to all types of heat sealing bags, envelopes, etc. up to 7" wide by new highly efficient method of pressure application. ALSO FOLDS BAG, as it is sealed, in one sure quick operation. Automatic thermostatic heat control. Heavy duty gear head electric motor. Write for additional information.

### HAND SEAL-IT

Aluminum hand-sealing iron containing 2 built-in sealing surfaces. Automatic thermostatic control adjustable to any heat sealing wrapping material.



### WRAP SEAL-IT

Ingenious, foot-operated heat sealing iron — frees both hands for wrapping. Production 50% faster ... safer and more economical.

**WRITE FOR!**  
**CATALOG.**

... ILLUSTRATING COMPLETE LINE INCLUDING 12-F FOOT MODEL AND "PACER" HEAVY-DUTY MOTOR-DRIVEN BAG SEALERS

## HEAT SEAL-IT COMPANY

LANCASTER AND PARRISH, PHILADELPHIA 4, PENNA.

## Pi standard test methods

(Continued from page 147) from one side to the other.

1—material completely adhered together—separation cannot be made without complete destruction.

### 9. Report

The block point is recorded as the temperature in deg. F.; under 1½ lbs. pressure/sq. in. for 24 hrs.

### 10. Interpretation of Results

If a material does not block at 150 deg., it is reported as 150 deg. plus, since, with few exceptions, all blocking requirements for materials fall within the 100 deg. to 150 deg. F. range.

### 11. Remarks

A. Some materials are run with three or four samples at each temperature to insure conclusive results.

B. In some cases, adhesion may be obtained which can be defined as a "mechanical cling." For example, the rough and smooth sides of a plastic film may adhere, but this is not a true block since contacting surfaces were not disturbed.

## Coordinated marketing

(Continued from page 94) loved. By the extensive use of white space the package is given an aseptic and medical appearance which inspires confidence.

In this package the manufacturer has likewise achieved excellent balance, an element in package design which may be defined as the means of maintaining poise by the proper distribution of weight. By endeavoring to crowd too much into a label design this balance is often lost. Too much weight, for example, may be placed at the top of the label, throwing it out of balance with the manufacturer's name in the typical signature position.

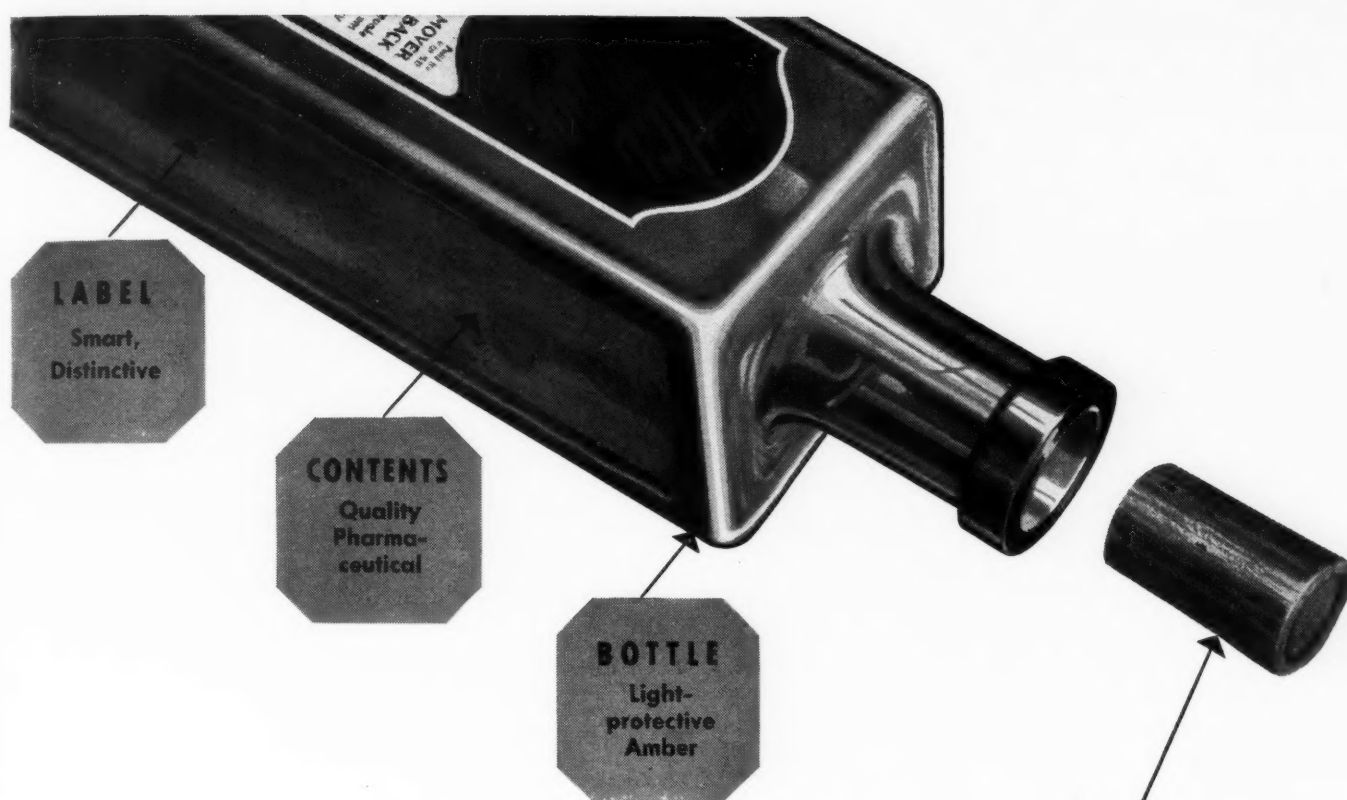
Proportion in a package is more significant than is sometimes realized. Psychologists inform us that the interest of a person is more apt to be excited by a rectangle than a square. In typesetting, therefore, rectangular blocks, rather than square blocks of type, should be sought. One should be careful, however, to make the typesetting conform with the general proportions of the package.

In Fig. 3 we call your attention to our own Suprel Solution package. Considerable time was spent in designing this package to make certain that the margins were in correct proportion both with the type block and with the shape and size of the package itself. In our Parenamine package we also feel that the position of the type block and the use of white space accentuates its good proportions. The Bayer Co. has since further modernized its package for Bayer Aspirin 100s,\* but even the old design, has delightful proportions.

The harmonious recurrence of emphasis is what produces the element we have called rhythm. The

\* See "Accent on Bayer," MODERN PACKAGING, Aug. 1946, pp. 104-105.





**For maximum repeat sales  
you need quality here, too**

Unless you use a top-quality cork, all the skill and care lavished on your package design and contents may be lost on your customers.

Only when you use a top-grade cork can you be sure your product is safely sealed, the contents protected against leakage and deterioration. What's more, a top-quality cork, one that comes out easily, creates a first impression of quality that helps customers decide to ask for your brand again—brings in repeat sales.

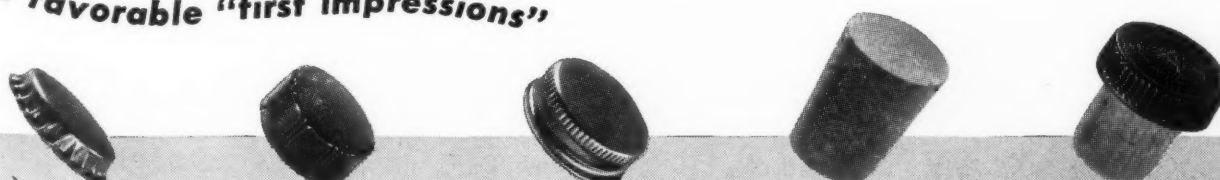
You can be sure of getting corks that sell, as well as seal, when you buy them from Arm-

strong. Our 86 years of leadership in the corks field is your guarantee of receiving top-quality corks, skillfully cut from the finest corkwood, accurately and honestly graded. It will pay you to order your corks from Armstrong.

For information about Armstrong's Corks—straight, tapered, shell, flange, or Embossed-Top—or any of the many other Armstrong Closures, get in touch with your nearest Armstrong representative. Or write to the Armstrong Cork Company, Glass and Closure Division, 5911 Prince Street, Lancaster, Pa.



**For favorable "first impressions"**



**ARMSTRONG'S CORKS and CAPS**

*It's COLOR that  
sells the Product*



Now you can dress up your product in beautiful colors with our mass production methods. There's nothing like color to increase sales quickly by improving the eye appeal. If your present production on plain, glass containers is in large volume, your coloring cost will come back to you many times over in increased sales.

**COLOROID**  
Corporation

W. 58th & Walworth Avenue, Cleveland 2, Ohio



omission of unnecessary type on a label and the carefully arranged emphasis obtained by the use of different type sizes makes a package almost dance with rhythm.

One of the greatest mistakes in package design, we have discovered, is to try to get psychological action by blatant, wild colors, and large bold type faces. Someone once defined grace as "motion that is effected with an economy of force." That is the kind of grace one should try to put into a package.

All these seven elements—unity, emphasis, functional interpretation, balance, proportion, rhythm and grace—are important to packaging that is to be given spotlight position in the coordinated marketing that is the coming "must" of drug and pharmaceutical merchandising and professional assistance is desirable in obtaining these ends.

As the curtain goes up on coordinated marketing, the consumers wait as your expectant audience.

Listen to the call boy's cry of "Curtain going up!" and be prepared with modern packages that have visibility, readability, and memorability—the three results to be earnestly sought in sound package design.

## Kinetics of package life

(Continued from page 146) results which have been kindly supplied by interested independent laboratories, while the crosses represent domestic experiments. Temperatures vary from 20 deg. to 35 deg., and a wide range of commodities is covered. The full diagonal line represents the identity  $\tau_{\text{obs}} = \tau_{\text{calc}}$ , while the broken line represents  $\tau_{\text{obs}} = 0.4\tau_{\text{calc}}$ . Only one point lies to the right of the broken line, showing that a constant safety factor of 2.5 would cover most of normal variations.

One point which is clearly brought out by the modified half-life equation is the enormous effect of temperature on life ( $\tau \propto 1/p_s^3$ ), and the necessity for storing wrapped materials at as low a temperature as possible. It is also desirable that the values quoted for measurements of resistance (or permeability) should indicate the temperature of measurement by means of a subscript, so as to show the values of  $p_m$ .

The earlier half-life equation was chiefly intended to enable users of protective wrappings to see that they were utilizing, in their packs, the full protective value of the wrapping material. This new equation goes further, and offers a means of predicting package performance in actual use. It should be noted, however, that the safety factor has been eliminated, and that it is good practice to reinstate it, as a constant, at some stage in the package-engineering calculations. The equation is still unsuitable for crystalline materials,<sup>9</sup> where the water of crystallization is not distributed uniformly through the materials.

Thanks are expressed to British Cellophane, Ltd., for permission to publish, and to several laboratories which have shown interest in the subject by criticism, by submission of packs for analysis, and in some cases by the provision of confirmatory results.

<sup>9</sup> Grover, *Chem. & Ind.*, 1945, 175.

# How to "deal" yourself a WINNER!



Building fast distribution for a new cosmetic? Introducing a fine new food product? Making new friends for an old established product? Try the "combination deal" system. Hitch your new product to a good old one—at an attractive saving . . . maybe the tried and true "1c sale"!

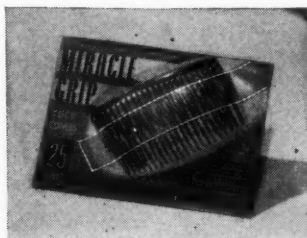
And for easy, economical "hitching" you can't do better than "SCOTCH" Cellulose Tape. It'll hold your deal together firmly. It'll let every bit of label show through. It'll stay attractive on display. And it'll eliminate costly special packaging.

Try "SCOTCH" Brand Tape on your next "deal." It's a winner!

## LOTS OF OTHER USES TOO!



Seals cylinder containers against dirt and moisture.



Holds small articles or samples to selling cards.

## GOOD NEWS . . .

Plenty of Heavy Duty Dispensers now—all ready for instant delivery. And all the large size "SCOTCH" Tape rolls you need to use with them. Order both from your jobber now.

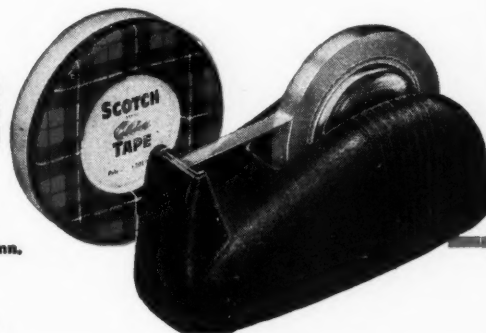
REG. U. S. PAT. OFF.  
**SCOTCH** Cellulose **TAPE**  
BRAND

SEALS WITHOUT MOISTENING

Made in U. S. A. by **MINNESOTA MINING & MFG. CO.,** Saint Paul 6, Minn.

THE 3M COMPANY

"SCOTCH" is the registered trade-mark for the adhesive tapes made by the 3M Company





# WOOD

## Caps

ANY SIZE  
ANY SHAPE  
ANY COLOR

with rust-proof  
metal inserts  
pressed in  
securely for  
perfect fit

We have made  
millions of wood  
caps for leaders  
in the Cosmetic  
field.  
Let us plan with  
you on your next  
packaging  
problem.

Delivery 4 to 6 weeks

*Gibson Jones Co., Inc.*  
400 Madison Avenue, New York, N. Y.

## Cushioning materials

(Continued from page 151) be confined to the packing of articles where dust, and dirt cannot possibly do harm.

These materials should never be placed in contact with corrodible surfaces.

**Wood wool (a wood converted product)**—This material has been found to be good as a cushioning material. Reliable information has pointed out that this material is available in a neutral state; however, when acidic or alkaline in nature, this material should not be placed in direct contact with metal surfaces.

This material upon being tested has shown that it contains water repellent properties but has a tendency to be somewhat hygroscopic.

A disadvantage in the use of this material is that it tends to dust upon repeated and rough handling.

**Papier mâché**—This material consisting of molded paper pulp impregnated with asphalt has been used successfully by AAF in packaging fragile instruments.

It has been used extensively in the past as cushioning material for parts preserved in accordance with method 1-A5, and method IID of Joint Army-Navy Specification JAN-P-116.

Advantages include the fact that it can be molded into desired shapes and sizes, is relatively non-hygroscopic, and has great crushing resistance.

Disadvantage of this material is that it is corrosive and the article being cushioned must be protected with a non-corrosive material.

**Other miscellaneous material**—There are other materials such as cork, balsa wood, etc., which are also used to good advantage as cushions.

One of the unusual cushioning packs developed by the armed services in collaboration with industry consists of a series of springs suspended on a metal frame, as specified in Joint Army-Navy Specification JAN-P-75. This means of cushioning (Fig. 5) has been developed for the packaging of specialized radio equipment and current tests prove it works out quite successfully.

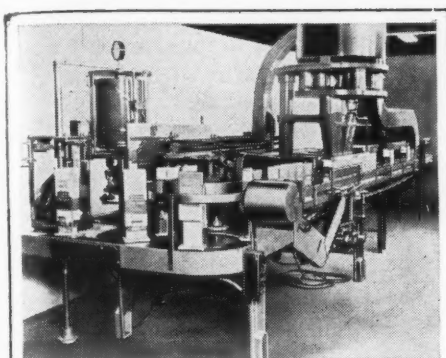
Other miscellaneous materials such as Cellufoam (anaerated wood pulp) Spongex (a rubber product), plastics and others are in process of being tested by various services. Although many of these materials are little known even to packaging engineers, it is evident that they shall be excellent for the cushioning job that awaits them in the future.

### General review and conclusion

It is the intent of this digest to stress upon the reader the fact that it is not the quantity but rather the type of material and the method used which protects the article being cushioned.

If materials other than those mentioned herein are to be considered as cushioning agents, they may be used depending upon the following factors:

1. Their ability to resist shock.
2. Their ability to resist abrasion.
3. Their ability to resist crushing.

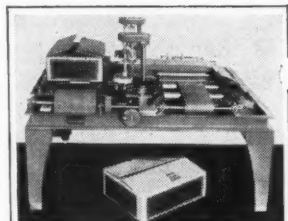


PACKOMATIC COMBINED TOP AND BOTTOM CARTON SEALER with automatic carton feeder and volumetric filler seals both top and bottom flaps automatically. Speed 60 to 75 cartons per minute.

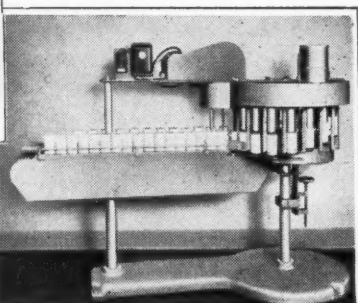
# WHATEVER YOUR PACKAGING JOB



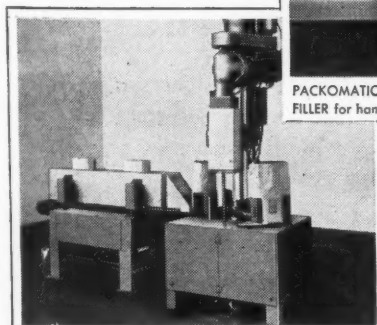
PACKOMATIC'S MODEL "D" CASE SEALER for paper shipping cartons. Seals tops and bottoms simultaneously—or tops, or bottoms only, if desired.



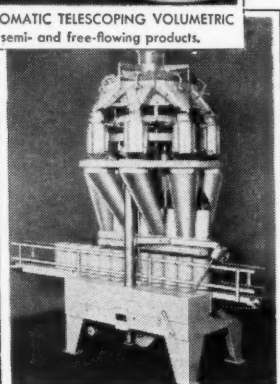
PACKOMATIC CASE IMPRINTER prints both ends of the case simultaneously, up to 20 per minute.



PACKOMATIC AUTOMATIC TELESCOPING VOLUMETRIC FILLER for handling semi- and free-flowing products.



PACKOMATIC'S AUTOMATIC AUGER PACKER—WEIGHER for semi- or non-free flowing products.



AUTOMATIC NET WEIGHT SCALE for metal & round paper cans, glass jars & rectangular containers.

## PACKOMATIC'S knowledge and experience can help you!

You'll be following the example of America's foremost manufacturers of package merchandise when you submit your carton filling or shipping case sealing jobs to PACKOMATIC.

PACKOMATIC packaging equipment includes a wide variety of performance-proved units, as follows:

New and Streamlined Model "D" PACKOMATIC Case Sealers that seal both case tops and bottoms on one machine—or tops, or bottoms only, if desired.

PACKOMATIC Combined Top & Bottom Carton Sealers with Automatic Carton Feeders and Volumetric Fillers, seal both top and bottom flaps and fill automatically; operate at speeds up to 60 to 75 cartons per minute. PACKOMATIC Automatic Telescoping Volumetric Fillers for semi- and free-flowing products.

PACKOMATIC Case Imprinters that print either one or both ends of the case at speeds up to 20 per minute.

PACKOMATIC Tube Cutters with elevator-hopper, designed to speed production from 70 to 100 percent....

PACKOMATIC Auger Packer Weighers for flour and similar products.

Builders of packaging equipment to do practically every packaging job, J. L. Ferguson Company assures you *first*, seasoned packaging advice and counsel; *second*, experienced package design and engineering; *third*, precision equipment-building and installation, *plus* guaranteed year-in, year-out interest in the performance you get out of PACKOMATIC Equipment.

For better package handling to meet marketing's increasing demands—consult your Classified Telephone Directory for nearest PACKOMATIC office today—or write Joliet.

Coupon below brings you colorful literature on PACKOMATIC Case Sealers, PACKOMATIC Carton filling and sealing machines, PACKOMATIC weighing equipment, etc. No obligation whatever for recommendations and suggestions.



# PACKOMATIC

PACKAGING MACHINERY

J. L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston • Philadelphia • Baltimore • Cleveland  
Denver • San Francisco • Los Angeles • Seattle • Portland • Tampa • Dallas

J. L. FERGUSON CO.

Joliet, Illinois Dept. MP-C11

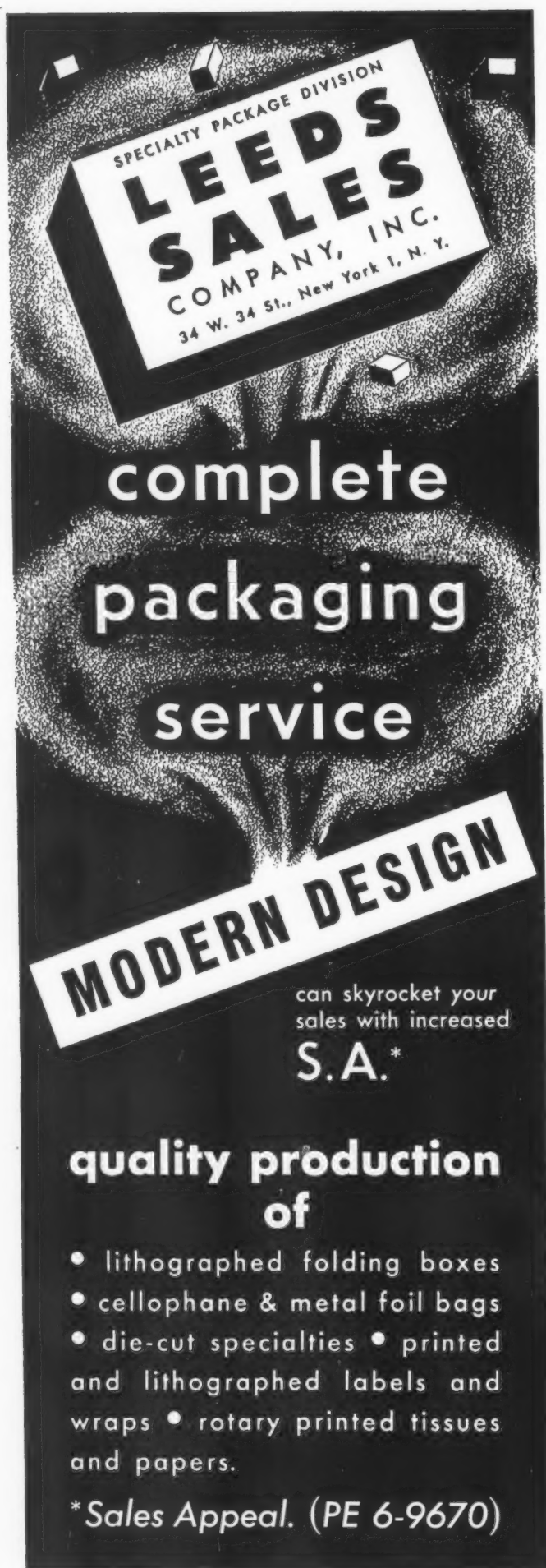
Please send complete data on ☐ Case Sealing ☐ Carton Filling and Sealing ☐ Package Weighing Equipment.

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_





SPECIALTY PACKAGE DIVISION  
**LEEDS SALES**  
 COMPANY, INC.  
 34 W. 34 St., New York 1, N. Y.

**complete  
 packaging  
 service**

**MODERN DESIGN**

can skyrocket your  
 sales with increased  
**S.A.\***

**quality production  
 of**

- lithographed folding boxes
- cellophane & metal foil bags
- die-cut specialties • printed and lithographed labels and wraps • rotary printed tissues and papers.

**\*Sales Appeal. (PE 6-9670)**

4. Their ability to resist moisture, or to hold cushioning properties when exposed to moisture.
5. Their hydrogen ion concentration (pH value) or non-corrosive nature.

Generally, material with acceptable cushioning properties should never be used within a water-vaporproof barrier, if it contains dirt, dust or other foreign contaminants.

Hygroscopic and other materials containing dust and other foreign matter can be placed within waterproof sleeves and pads to overcome those disadvantages.

Cushioning material should never be placed in direct contact with metallic surfaces unless it has been found to be non-corrosive.

Corrosible cushioning materials can be used in connection with non-corrosive greaseproof barrier-materials, thereby overcoming that disadvantage.

The nature of the article requiring protection will determine the thickness of the cushioning material required. The distance through which the momentum that the item may have acquired in shipping or handling can be safely overcome is the effective thickness of cushion required. This effective thickness can be determined by laboratory tests.

Heavyweight articles require cushioning materials that are denser and less yielding than those used for lightweight articles.

The type of barrier used and whether the cushioning material is placed inside or outside the barrier will greatly affect the choice of a suitable cushioning material. Materials to be used within waterproof or water-vaporproof barriers are restricted to those having low moisture content, while those outside of any waterproof barrier must retain their resiliency under severe wetting.

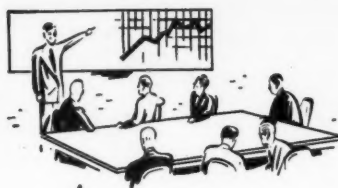
The use of more cushioning material than is necessary will reduce its capacity as a shock absorber. By this is meant the precompressing of the cushioning material into a given space. For example, although a 3-in. thickness of cellulose wadding has a greater capacity as a shock absorber than a 1-in. thickness of the same material, if a 3-in. thickness is compressed to fill the same space allotted to the 1-in. thickness it loses most of its shock absorbing properties. If the material on the other hand is not sufficiently dense, it will prematurely cease to function as a cushion, and the article to be protected may be damaged.

Acknowledgment is made and thanks is proffered to the U. S. Dept. of Agriculture, Forest Service, Forest Products Laboratory, Madison, Wis. for their permission to use, in part, material from report R-1489, "Development of a Procedure for the Determination of the Properties of Cushioning Materials and Their Application in the Design of Cushions."

Special thanks is extended to Keith Q. Kellicut, Technologist, Division of Materiel Containers of Forest Products Laboratory for his valuable suggestions and constructive criticisms of technicalities appearing in this digest, and to F. F. Freshwater, Chief, Technical Service Section, Processing and Packing Branch, of the Engineer Board for his services and time in editing.



PRODUCT HANDLING ANALYSIS to determine if special machinery can effect economies



# *What* **PALMER** **Development Laboratory** *Offers You...*

For many types of industry, the PALMER Development Laboratory is reducing production costs through the introduction of special, automatic machinery for handling, or packaging, or both. A Palmer development starts with the problem and ends when the problem ends—with equipment on the production line.

Development of  
**SPECIAL PACKAGING MACHINERY**  
as required



Development of  
**SPECIAL HANDLING MACHINERY**  
as required



## **PALMER**

CHICAGO

**PALMER DEVELOPMENT LABORATORY**

528 NORTH WESTERN AVENUE

CHICAGO 12

**PACKAGE MATERIALS TESTING**  
for greatest protection at least cost



**PACKAGE CONSTRUCTION**



**SIMPLIFIED** for savings in materials and labor

**DEVOTED TO PACKAGE AND MACHINERY DEVELOPMENT**



## And HERE'S PROOF!

The Muralo Co., Inc., Staten Island, N. Y., manufacturers of water-thinned paints in paste and powder form eliminated a serious bottleneck in their packaging department, increased production by 30 to 50%, and reduced labor costs by installing a new CECO Adjustable Carton Sealer.

One CECO Sealer with an automatic tucker plus one operator now handles the entire production of a filling machine, doing work formerly requiring three hand-sealing operators. The machine is instantly adjustable, without tools, for all their different sizes and shapes of cartons.

Two additional CECO Sealers have been ordered for the Staten Island and Chicago plants to meet the large demand for Muralo products. The saving in labor alone will easily amortize the low cost of these versatile CECO Sealers within six months.

If you want to reduce labor costs and increase production, let us send you facts and figures showing what CECO Adjustable Carton Sealers are doing for concerns like yours.

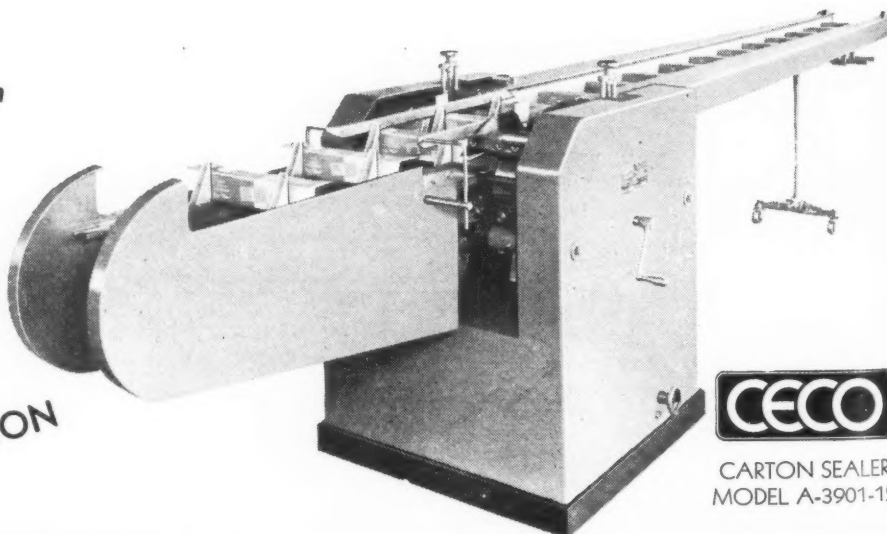
One CECO Adjustable Carton Sealer automatically tucks and seals both ends of cartons from 3 1/4" to 12" deep.

# CECO

## Adjustable CARTON SEALER

Send for new bulletin

**CONTAINER  
EQUIPMENT  
CORPORATION**



# CECO

CARTON SEALER  
MODEL A-3901-12

*Packaging Machinery  
Specialists*

214 Riverside Ave., Newark 4, N. J.  
CHICAGO • TORONTO • BALTIMORE • ST. LOUIS  
SAN FRANCISCO • ROCHESTER

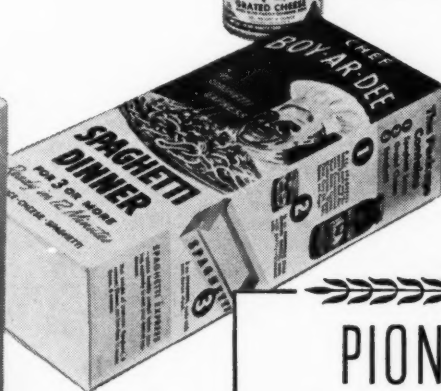
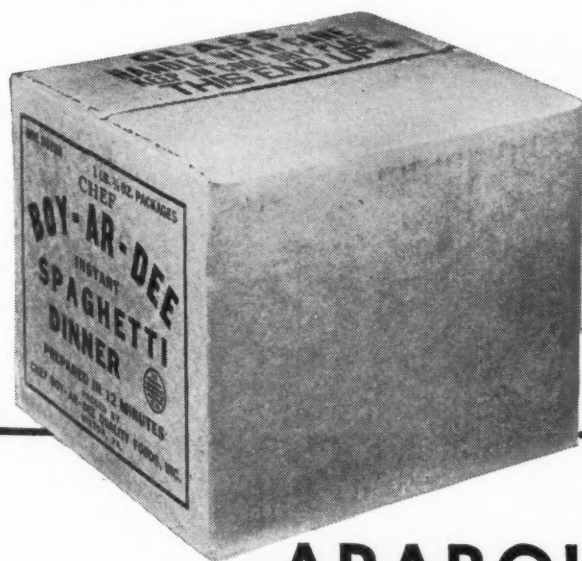
## *"Careful packaging COUNTS in our business..."*

"... Good foods demand good packaging. The reasons have to do with both appearance and health. The adhesives are as important as any one material we use. Your products and your service are eminently satisfactory."

Arabol takes pride in receiving such favorable comment from the makers of "Chef Boy-Ar-Dee" Spaghetti Dinners and Spaghetti and Meat Balls.

As suppliers of adhesives for the labeling, packaging and case-sealing of these quality products—Arabol makes a point of providing the right adhesive for each particular job. Labels stay fast on tin or glass, insuring quick identification, encouraging repeat sales. Cartons and shipping cases remain sealed, protecting the contents against damage.

As a result of this policy—to produce the correct adhesive to meet each customer's special requirements—Arabol now serves the leaders in a hundred industries. We place at your disposal the knowledge gained from more than 60 years of experience. See the Arabol Representative when he calls; he knows adhesives.



PIONEERING  
*in the making of*  
ADHESIVES THAT WORK

**THE ARABOL MANUFACTURING CO.**

Executive Offices: 110 East 42nd St., New York 17, N. Y. CHICAGO — 54th Avenue & 18th Street  
SAN FRANCISCO — 30 Sterling Street • Branches in Principal Cities • Factories in Brooklyn, Cicero, San Francisco



*Adhesives?...* **ARABOL!**



## NATIONAL BISCUIT COMPANY



1899 ...

**End of the  
cracker barrel**



**T**HE history of packaging is short. It was less than fifty years ago that the National Biscuit Company put an end to the cracker barrel by introducing their famous Uneeda Biscuit in a consumer unit.

The history of NABISCO is an example of both individual and company initiative . . . of the business progress and growth that has helped to make America great. NABISCO traces its beginning to 1792 when Theodore Pearson began making Pilot crackers. In 1801 two other bakeries entered the field, and all three later became part of the National Biscuit Company. Invention of the reel oven during the Civil War made quantity production possible, and packaging later brought quantity production to the home in fresh, tasty and economical form.

Today, NABISCO owns and operates thirty-two bakeries in twenty-one states. About 1800 regular truck routes deliver NABISCO products to over half a million outlets.

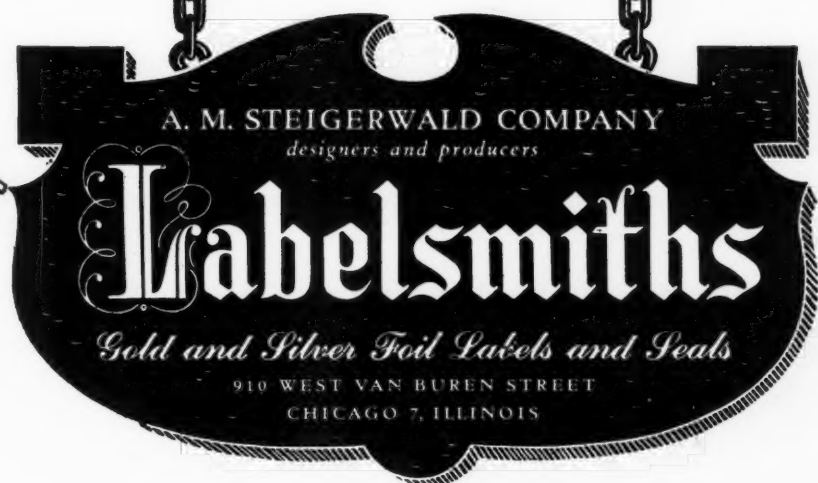
### HOW NATIONAL BISCUIT USES RIEGEL FUNCTIONAL PAPER

National Biscuit is one of our oldest customers for Functional Packaging Papers. Over the years, many millions of pounds of Riegel's Waxed Glassine have been used as carton liners to maintain the tasty crispness of NABISCO crackers. Other Riegel Papers, both printed and plain, are used as outer wraps; for bulk package liners and for many other products. Riegel Tympanis are used on their printing presses and Riegel printing papers (supplied to manufacturers of office equipment) help to keep the intricate records necessary in so large a business.

# Riegel Papers

FOR FUNCTIONAL PACKAGING

RIEGEL PAPER CORPORATION • 342 MADISON AVE. • NEW YORK 17, N. Y.

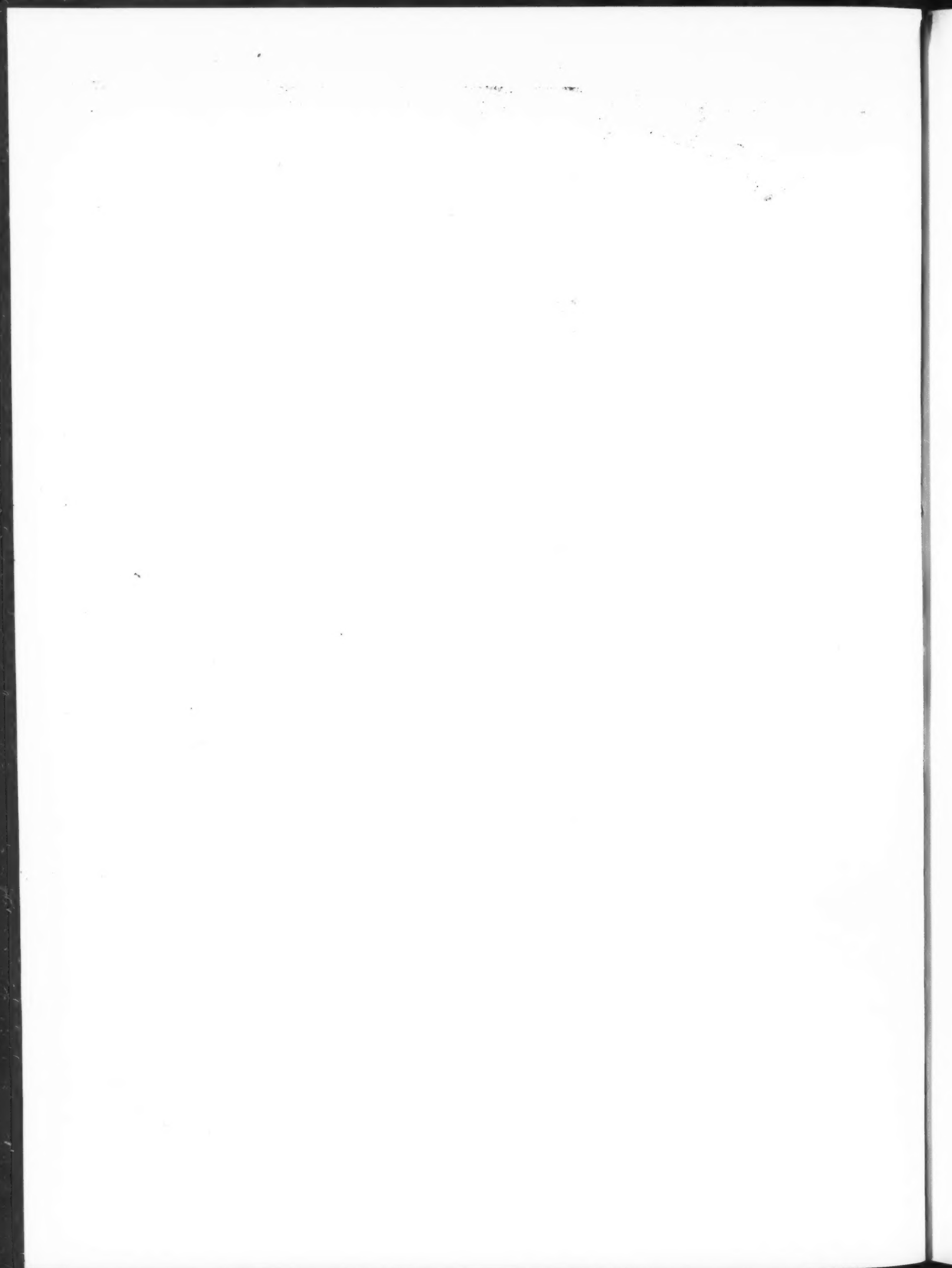


Labelsmith seals and labels of gold and silver foil add dignity, distinction, character and prestige to your product. Labelsmiths is the exclusive trademark of the A. M. Steigerwald Company, creators and producers of fine labels for fine products.

*Buy a Label with Buy Appeal*

Poor labels cost a fortune. Send your label problem to us and we will create a "Labelsmith Original" without obligation of course.







# WIRZ COLLAPSIBLE TUBES FOR YOUR CREAMS, PASTES, POWDERS, LIQUIDS

**INCREASE EYE-APPEAL, PROTECT YOUR PRODUCT, ADD CONVENIENCE**

Whether your product is a newcomer or a well-established one, you can increase its eye-appeal and its convenience and at the same time keep it free from contamination in attractive, sanitary, self-dispensing WIRZ Collapsible Tubes. Designed with walls of uniform thickness, correct structure and orifice, WIRZ Tubes take decorative inks and lacquers beautifully. Self-dispensing, convenient, they prevent waste, protect your product and your customer good-will. Let us help you plan now for this extra appeal, protection and convenience.

## A. H. WIRZ, INC.

*Established 1836*

**CHESTER, PA.**



Export Division—751 Drexel Building, Philadelphia 6, Pa.



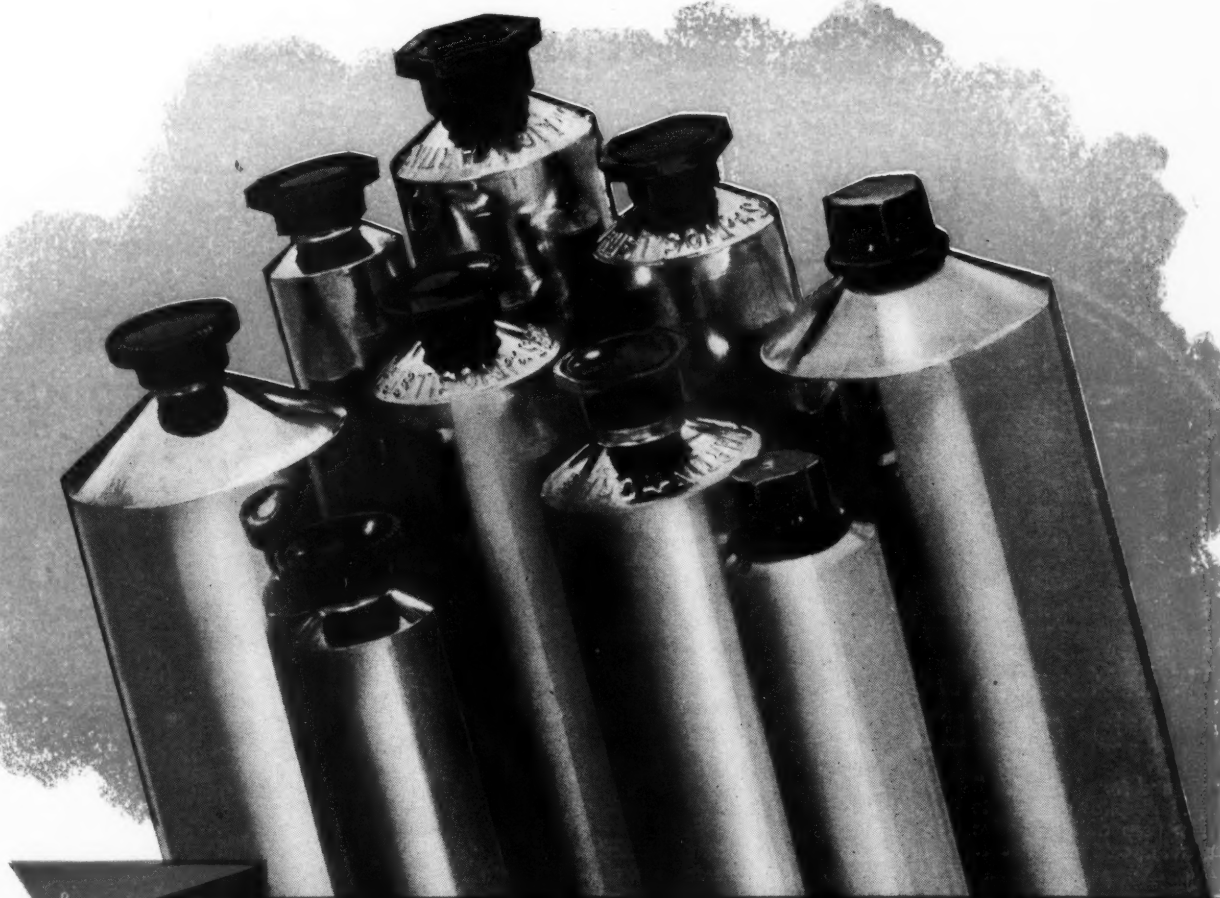
New York 17, N. Y.  
50 E. 42nd St.

Chicago 4, Ill.  
80 E. Jackson Blvd.

Memphis 2, Tenn.  
Wurzburg Bros.

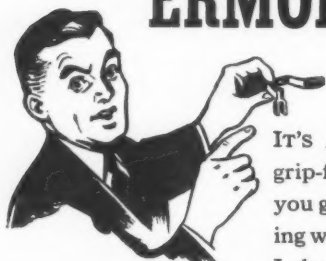
Havana, Cuba  
Roberto Ortiz Planos

A. G. Spilker { Los Angeles 14, Calif., 1709 W. 8th St.  
Exposition 0178—Also Danville, Calif.



**COLLAPSIBLE METAL TUBES • LACQUER LININGS • WAX LININGS • WESTITE CLOSURES • SOFT METAL TUBING • HOUSEHOLD CAN SPOUTS • APPLICATOR PIPES • COMPRESSION MOLDING**

## Why the Grip-Finger on the ERMOLD?...they ask



It's JUST ONE little part, but the grip-finger is the chief reason why you get such accurate label positioning with the Ermold Semi-Automatic Labeler. For when the picker plates

bring the glued label down to the container, then...

At exactly the right split second, the grip-finger pins the label firmly in exactly the right position, while the wipers smooth the label to the package's surface. There's no shifting... no "crooked labeling" to spoil your product's appearance.

Over a wide range of package sizes and shapes, the Ermold's average output is 40 per minute or more, depending on the package's size and the operator's skill. That includes body and neck labels and foil too, if desired. And because major repairs are few and far between, cost-per-year is surprisingly low.

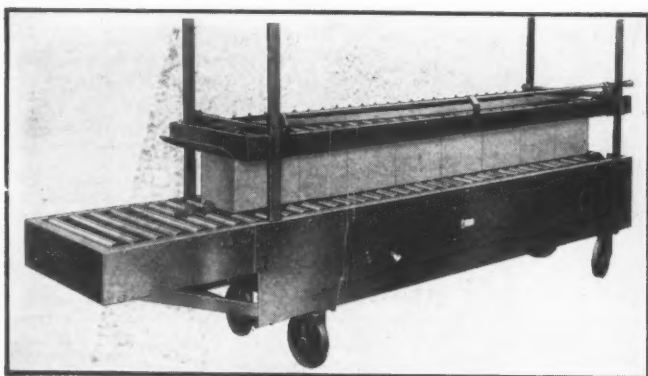


# ERMOLD LABELERS

EDWARD ERMOLD COMPANY  
652 Hudson St., New York 14, N.Y.



## Increase Efficiency ... Cut Mfg. Costs



### With the ABC HAND GLUER

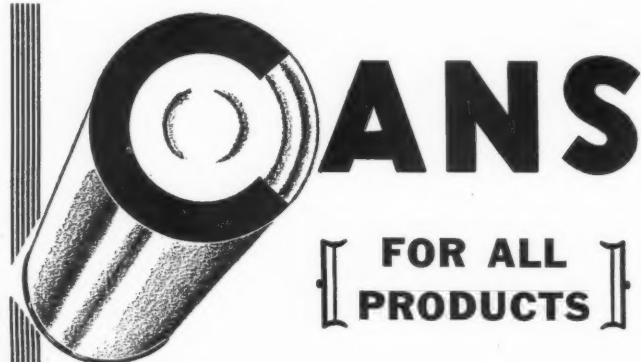
Designed for plants with limited production runs. Applies pressure to corrugated container flaps while adhesive sets, eliminating several operations. Reasonably priced.

Adjustable for containers 3" to 26" wide, 4" to 40" long, 1 1/2" to 30" high.



Special Engineering Service  
Packaging machines correctly designed and constructed to fit your own special requirements.

**ABC PACKAGING MACHINE CO.**  
QUINCY, ILLINOIS



also  
**LIGHT GAUGE  
DRUMS**

**PLAIN OR  
LITHOGRAPHED**

**COLUMBIA CAN CO., INC.**

29-28 41st Ave.

Long Island City 1, N.Y.

Telephone: IRonsides 6-4972

# *Distinctive* PRINTING on **PLASTICS and GLASS** *to enhance your packages*

We specialize in printing on cylindrical and odd-shaped surfaces. We are equipped to handle any quantity of work easily, large volumes preferred.

*We are also*  
**SPECIALISTS IN HAND  
DECORATING ON ALL  
TYPES OF MATERIALS**

*Verne Gilbert, Inc.*

523 W. 45th ST., NEW YORK 19, N. Y. • Phone: CI 6-4233



**H-5  
NAPKIN  
FOLDER**

**PRODUCES NAPKINS FASTER  
... THAN EVER BEFORE**

**M**ORE and better napkins with our post-war No. 2-A folder. Makes all folds — quarter fold, eighth fold, sixteenth fold and dispenser fold — on one machine. This unusual versatility, plus our usual quality, makes this multiple duty folder an important addition to your production department. Write for information.

**HUDSON-SHARP**  
MACHINE CO • GREEN BAY • WIS



**DRESSED  
TO SELL**

**PRODUCTS PACKAGED IN LUSTEROID  
MEAN "CLEAR SELLING" AHEAD**

Your sales job is made easier when your product is "clothed" in sparkling, crystal-clear LUSTEROID.

These modern plastic vials and tubes are actually small showcases that display your product while protecting it in transit, over the counter and in use.

Remarkably light in weight, LUSTEROID containers are strong, rigid and unbreakable. Their printability saves on labeling. Their wide variety of colors—clear or opaque—make them a most effective merchandising medium.

LUSTEROID comes in standard diameters of 1/4" to 1-1/4" and lengths to 6". Cork, slip-on or screw-cap closures.

*Write for full details today.*

**LUSTEROID CONTAINER CO., Inc.**

Formerly Lusteroid Division of Silcock-Miller Company

Office and Factory  
10 W. PARKER AVENUE, MAPLEWOOD, N. J.  
MAILING ADDRESS: SOUTH ORANGE, N. J.



26 YEARS

OF KNOW HOW

Specializing in **PRECISION**  
**COMPRESSION, TRANSFER**  
and **INJECTION MOLDING**

*also High Pressure Die Casting  
of Zinc and Aluminum*

**PLASTIC & DIE CAST PRODUCTS CORP.**

1010 EAST 62nd STREET • LOS ANGELES 1, CALIF.

Roy L. Peat, President

Established 1920

**On Guard  
AGAINST  
MOISTURE  
INGRESS**



**THE DOUBLE SEAL OF PROTECTION**



**Filma-Seal**  
CAP AND SEAL APPLIED AS ONE

With Filma-seal® you can keep the moisture out of your package and at the same time disclose tampering and prevent contamination. A Filma-sealed® bottle—without additional wrapping, cartons, etc.—is the perfect package for the modern self service store. Contents are fully visible—yet guarded till the innerseal is peeled off by the consumer. Gutmann Screw Caps and Filma-seal® innerseals are applied in one quick operation.

**FERDINAND Gutmann & COMPANY**  
SINCE 1890

\*Reg. U. S. Pat. Off. and abroad 3601 • 14th AVENUE, BROOKLYN 18, N. Y.

**ARE YOU EQUIPPED** to meet  
**RE-CONVERSION** and its acutely keener competition?

**BECK SHEETERS** designed and built for the mastery of accuracy and low costs, possible only through their dependable and automatic operation: these can be the unfailing answer to your needs.

Equipped with **ELECTRIC-EYE** and **SHEET-PILER** with **AUTOMATIC LOWERING TABLE** represents the latest in high production, automatic sheeting work.



**CHARLES BECK MACHINE CO.**

13th & Collowhill Streets

Philadelphia, Pa.

# ■ ATTRACTIVE WRAPPING

AT LOW COST WHEN YOU USE A HAYSSSEN CARTON WRAPPING MACHINE

**IT PAYS TO WRAP  
THE HAYSSSEN WAY**



Smooth, attention-getting overwraps, which give your packages a well-dressed appearance, are yours for the asking when you wrap on a Hayssen Carton Wrapping Machine. Whether you use printed or plain overwraps, protection to the contents is assured and your packages will look their best. Hayssen Wrapping Machines are dependable, easy to operate and keep wrapping costs down to a minimum. Before you replace worn-out equipment, check the advantages of operating a Hayssen. Write the factory at your earliest convenience.

*Hayssen Mfg. Co., Sheboygan, Wisc.*

**HAYSSSEN WRAPPING**  
ELECTRONIC CONTROLLED **MACHINES**

## WAXES

*For paper board impregnation*



FOR DIP COATINGS  
EMULSIFIED WAXES  
COATING WAXES

Meet Army and Navy specifications  
**WAXES FOR FUNGUS PROOFING**

Our laboratory will welcome your problems

Zophar Mills, Inc. has been known  
for its dependable service and uni-  
formity of product since 1846.

**ZOPHAR MILLS, Inc.**

Established 1846

106-26th Street • Brooklyn 32, New York

## FOR BETTER PACKAGING



WRITE, PHONE or WIRE for Quotations on Your Requirements for

## PARTITIONS

IMMEDIATE ATTENTION  
Given to Requests for Estimates

Prompt Deliveries  
Guaranteed

**PETER**

Reasonable Prices  
Assured

**PARTITION CORP.**

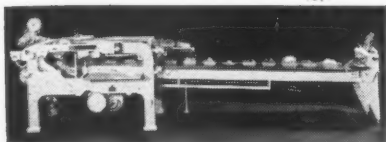
Manufacturers of Partitions for Paper Boxes  
647-649 LEXINGTON AVE. BROOKLYN 21, N.Y.  
Telephone: FOxcroft 9-2129

They come to  
**"OLIVER"**

for the latest in automatic  
 wrapping and labelling  
 and label imprinting

One food  
 chain  
 operates  
**62**  
 "Olivers"

**234**  
 independent processors  
 and manufacturers — each  
 operates one "Oliver"



Most of these "Oliver" Wrapping Machines are used to wrap cakes, cookies, fresh fruits and vegetables in cartons, trays, U-boards and flat cards. But more and more processors and manufacturers find the "Oliver" solves their wrapping problems, too. The "Oliver" is also used to wrap frozen foods, dried fruits, dehydrated products, candies, paper napkins and plates, textiles, etc., in almost any heat-sealing material. Discover the advantages of the automatic Roll-Type Labeller and Label Imprinter, and the automatic Card-board Folder and Feeder. The outstanding versatility of the "Oliver" will amaze you.

Another  
 food chain  
 uses  
**46**  
 "Olivers"

**83**  
 processors —  
 each uses  
 2 to 5

Another  
 food chain  
 uses  
**26**

Another  
 food chain  
 uses  
**40**  
 "Olivers"

7 smaller  
 chains—each  
 uses  
**6 to 9**

3 smaller  
 chains—each  
 operates  
**12**

Write for all the facts

OLIVER MACHINERY COMPANY  
 Packaging Division Grand Rapids 2, Michigan

**"Oliver" Wrapping Machine**

WITH "OLIVER" AUTOMATIC ROLL-TYPE LABELLING SYSTEM



## TUBULAR Paper PACKAGES

Tubular Paper Packages have very wide use under present post-war conditions. They are sturdy, lightweight, and can be attractively decorated in a wide range of colors.

DIAMETERS: 1/16" TO 2 1/2" IN ANY LENGTHS

Ask for Quotations

**DIAMOND STRAW & MACHINE CO**

32-36 WEST  
 NEW YORK 11



18th STREET  
 N. Y.

## FINISHING

### FOR PRINTERS AND LITHOGRAPHERS

- Varnishing
- Lacquering
- Embossing
- Gumming
- Pebbling
- Die Cutting
- Straight Cutting

High Gloss Offset Coating and  
 Ultra Gloss for Offset Stock

*Lithographers'*  
**FINISHING COMPANY**

224 Centre Street  
 New York 13, N. Y.  
 CAnal 6-5171-2



## THE CADO FLO-MASTER

Writes • Draws • Marks  
on Any Surface

THE packaging industry has adopted FLO-MASTER as a help in the designing room, in the factory, in the shipping department.



FLO-MASTER speeds up operations, writes, draws, marks thin, medium or broad lines on paper, cellophane, wax, fabric, metal or any other hard to mark surface. Valve controlled. All Aluminum. Leakproof. Safe to carry in your pocket. Perfect legibility. CADO Inks (black and colors) dry instantly. Ask for FLO-MASTER from your supplier or write us for details now.

CUSHMAN & DENISON MFG. CO.  
135 West 23rd Street New York 11, N. Y.

## NUMBERING *your merchandise* is EASY!

with FORCE  
CASE NUMBERERS...

Made of plastics and aluminum, the Force Case Numberer is an easy-to-handle automatic number-stamper for all rough surfaces. Rubber figures spread ink easily . . . stamping numbers clearly, legibly. The famous Force drop cipher further simplifies operation. Used in mailing rooms, shipping departments, express services everywhere.

IMMEDIATE SHIPMENT

WM.A.FORCE & CO.

107 WORTH STREET, NEW YORK 13, N. Y.  
Cortlandt 7-2488



*Consult us about  
your other  
problems*

## Glamour and Utility!

FOR ALL TYPES  
OF PACKAGING



Your product can be lovely to look at . . . longer! For, these remarkable, new CLEARSEAL Plastic Coatings can cover your package with cover-girl charm, and assure you complete product protection. CLEARSEAL makes plastic coated soils, fabrics and papers for packaging, to your own specifications of service. Safely waterproofs, moisture-vapor proofs and guards against insidious dust, mildew, acids and rust. CLEARSEAL'S new modern plant assures you a prompt and efficient flow of goods. Take the CLEARSEAL way to finer packaging! Write or telephone.

# Clearseal

A DISTINGUISHED NAME  
IN PLASTIC COATINGS

EXCLUSIVE PROCESSES THE PROPERTY OF

## CLEAVELAND

LABORATORIES AND MANUFACTURING CO.

Pioneers in the application of Plastic Coatings to Textiles and Paper  
Peapack, New Jersey 7905 Empire State Building

SOLE DISTRIBUTOR

NATIONAL COATED PRODUCTS COMPANY  
40 Worth St., New York (13) Tel. REctor 2-5446

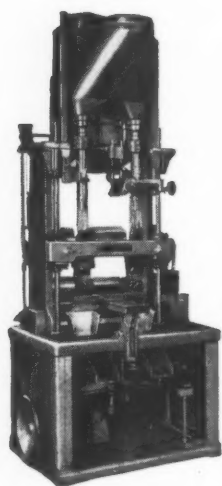
## KODAK'S new package for photographic developer

better display  
self service



### MATCH BOOK SIMPLICITY

complete protection  
more utility



*They used*



### TRANSWRAP PACKAGING MACHINES

Transwrap is more than a machine, more than a package—  
It's a merchandising plan that can be used to give your product  
terrific sales impact.

Neat and attractive, the web may be of Cellophane, Pliofilm  
or approved Heat Sealing Paper or Foil. Plain or Printed—  
Single, Double or Laminated—web as supplied by any con-  
vertor, and the package may be either of the pillow type, or  
with gusset folds, or "Finseal" type. Heat sealing, with  
carefully controlled temperature, insures a tight package, yet the  
serrated or notched cut-off makes it very easy and quick to open.

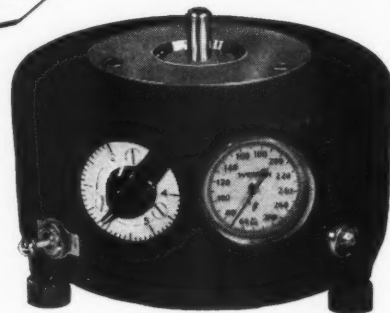
## STOKES & SMITH CO

FRANKFORD, PHILADELPHIA 24, U.S.A.  
FILLING • PACKAGING • WRAPPING MACHINES  
SPEEDS TO SUIT YOUR NEEDS  
15 — 30 — 60 — 120 PER MINUTE

*"Better machines for better packages"*

## NEW FABRICATING EQUIPMENT FOR PLASTICS

For beading  
or curling cylinders,  
drawn containers  
or caps of  
thermoplastic  
materials



THERMO-CURL

Whatever your problem with thermoplastic materials  
HARCO can be of assistance thru special equipment  
or the standard HARCO machines now available.

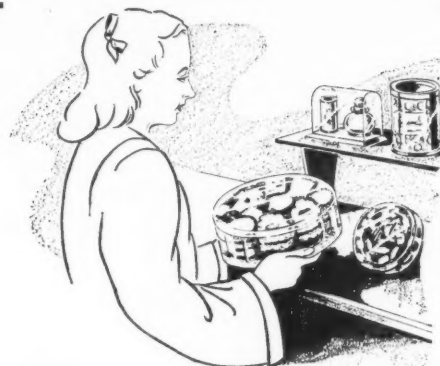
Write Today — No Obligation

WATCH FOR ANOTHER DEVELOPMENT BY HARCO NEXT MONTH

**HARCO**  
INDUSTRIES, INC.

118 SHADY WAY • ROCHESTER 12, N. Y.

## Weinman TRANSPARENT PLASTIC BOXES TURN SHOPPERS INTO BUYERS



Plan now to package some  
of your products the trans-  
parent plastic way in 1947.  
These containers catch the  
eye and make spur-of-the-  
moment sales quick as a  
wink!

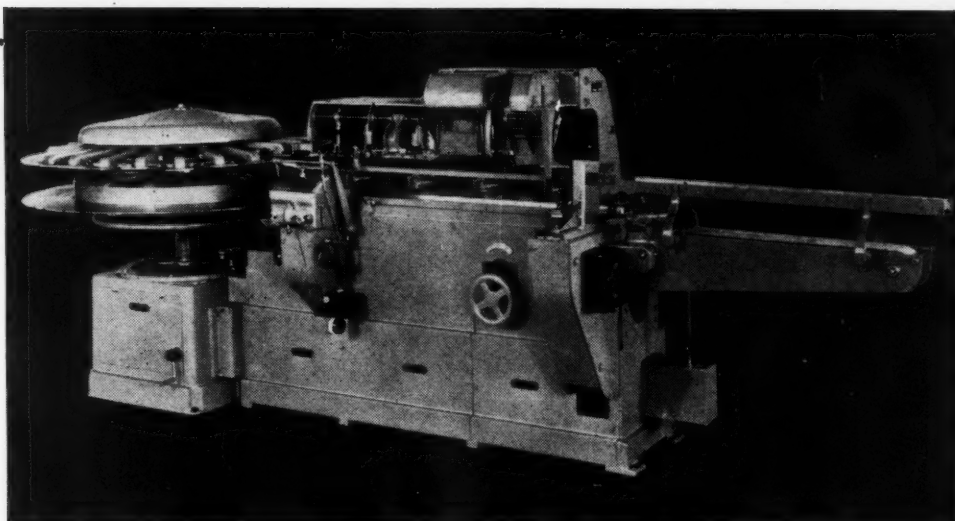
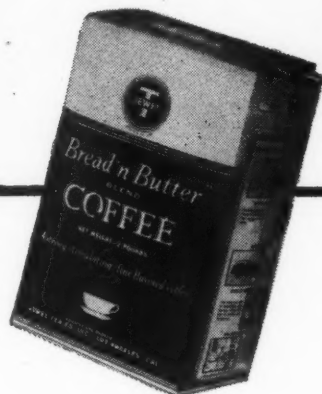
Send for Samples

## WEINMAN BROTHERS

325 N. WELLS ST.

CHICAGO, 10

LET  
**SEALTITE**  
CUT YOUR  
PACKAGING  
COSTS



**I**MPORTANT savings invariably result when a SEALTITE Bag Sealer is installed in a packaging line. Some users report costs as much as \$500.00 lower per month per machine than with previous methods of packaging.

SEALTITE is fully automatic. It opens

bags, fills, settles, shapes and seals at speeds ranging from 30 to 50 bags per minute on standard gusseted 2 to 10 lb. paper bags. SEALTITE delivers a square, flat-topped, sift-proof package that stacks like a carton.

If you are packaging in paper bags, write for information on SEALTITE.

**CONSOLIDATED PACKAGING MACHINERY CORP.**  
**BUFFALO 13, N. Y.**

**CAUTION**

**D**UE to the ever growing demand for Floquil products, it is necessary at this time to caution the trade:

Competitive products are appearing on the market bearing names similar in sound and spelling to the name Floquil. True, this is flattering, but—in order to protect our distributors and the consumer, we wish to caution that no marker or marking fluid is genuine that does not bear the name and distinctive signature of Floquil.

*Floquil*  
REG. U. S. PAT. OFF.

Remember: FLOQUIL is Famed for Quality

**EXCLUSIVE FAST SELLING FLOQUIL FEATURES**

- ✓ Over 1000 uses — Marks on everything wet or dry.
- ✓ Handy, non-breakable, non-inflammable
- ✓ Instantly interchangeable, precision fitted nibs. No tools required.
- ✓ Only 3 parts, can't get out of order
- ✓ Marks at a touch. Speeds work. Eliminates fatigue.
- ✓ Quick, clean, always ready for use
- ✓ Unconditionally guaranteed for mechanical perfection.
- ✓ Continuous "gravity-feed" flow. Needs no priming.

Write for Literature

**FLOQUIL PRODUCTS, INC.**  
1993 Broadway • New York 23



**Finishing Can MAKE  
A Package**

*Finishing*—the final touches—can make or break your package. We specialize in every type of finishing operation — varnishing, lacquering, gumming, die-cutting, embossing, punching, straight cutting, paraffining — and offer our special process: LUSTRALITING.

**JOHN W. CRAWFORD CO.**

Est. 1859

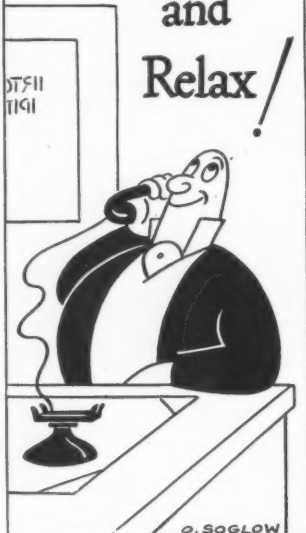
160 VARICK STREET, NEW YORK, N. Y.  
WALKER 5-5473



## GOING NUTS over a new Tag or Label Problem?



## PUT IT UP TO Dennison and Relax!



**T**HE current trend towards letting the merchandise speak for itself in retail stores gives new importance to point-of-sale tags and labels. In solving this problem, you will save a lot of wear and tear on yourself by putting it up to Dennison first.

Dennison's experience in producing informative labels and talking tags covers practically every type of product manufactured. We can give you valuable tips on making tags and labels that are distinctive, catch the eye, and strike a strong buy-now note.

In addition, Dennison recommendations include practical advice on the best way to affix tags and labels to your product. For example, among the many Dennison methods of attaching tags are our new Snap-Lok and barb fasteners, as well as button-slot or special tongue-slot constructions.

Remember, too, that you do not have to pay a premium price for experience and know-how when you put your problem up to



# Dennison

PAPER PRODUCTS THAT PRODUCE RESULTS

**FREE—ILLUSTRATED BOOKLET**—Our booklet "If You Could Only Be at Every Point of Sale" is full of practical information on how to make your product more salable through correctly designed tags and labels. Just fill in and mail coupon and we shall be glad to rush a copy to you.

TAGS • LABELS • SEALS • SET-UP BOXES • MARKING SYSTEMS • PAPER SPECIALTIES

Dennison Manufacturing Company, 2275 Ford Ave., Framingham, Mass.  
Please send me without obligation, booklet "If You Could Only Be at Every Point of Sale."

Name.....  
Firm.....  
St. & No.....  
City.....Zone.....State.....

# Parfait



## LEND THE CROWNING TOUCH

So often the last touch is the important touch—to make your package outstanding and give it extra sales appeal. That's the Parfait Touch—achieved with Parfait "Slip-On" Ribbon Bows.

On cosmetic and candy boxes, on gift wrappings, they are always distinctive, always in good taste.

Other Parfait creations include artificial flowers and leaves, fabric novelties and display materials.

For the ultimate in package decoration it's Parfait Products.



Promotional Packaging Company

270 WEST 38th ST., NEW YORK 18, N.Y.

## CUSTOM PACKAGING of Liquid and Dry Products

Any & Every Phase of  
Packaging—You Name  
It—Seaboard Does It!

Seaboard's custom packaging service takes care of your packaging job from planning to actual shipment.

Our facilities are such that we can handle both liquid and dry products:

INSECTICIDES  
CHEMICALS  
HOUSEHOLD  
PRODUCTS  
ANTISEPTIC  
CHEMICALS

In all types of containers:

BAGS  
JARS  
BOTTLES  
CANS  
CANISTERS

And perform all types of operations:

FILLING  
WEIGHING  
MIXING  
LABELLING

## SOME SPECIAL SEABOARD SERVICES

- We compound chemicals for you
- Help in the development of your own personalized package
- Assist you in obtaining packaging materials
- Make drop shipments to all parts of the country

See Seaboard for any phase of your packaging job

**SEABOARD MFG. LABS., INC.**  
Tulip & Dauphin Sts., Philadelphia 25, Pa.

*Acme creates*

THE BETTER THE PRODUCT THE MORE IMPORTANT THE PACKAGE

- the ideas in acetate...*



**Winners all....**

**Q**uality products are consistent sales winners with the buying public... Quality that must be reflected by the eye appeal of the package as well as in the attractiveness of lithographed window and counter displays.

The highly skilled craftsmen of the Sale Lithograph Company are trained to pay attention to even the smallest details in the course of production, thus assuring you sales-winning advertising material.

*Displays, Cut-outs, Box Wrappers, Folding Cartons, Labels, Folders, Inserts, Booklets and Calendars are created and produced by the Sale Lithograph Company for nationally known manufacturers and do an effective selling job throughout the world.*

**The SALE LITHOGRAPH CO.**  
*Color Lithographers*  
 210 WASHINGTON STREET BUFFALO 3, N. Y.  
 Since 1904 Devoted to the Production of Fine Lithography

# Camachine 28-30

**ACCURATE STRIP WIDTH  
 POSITIVE ROLL SEPARATION  
 UNIFORM ROLL TENSION**

A fast, versatile slitter-winder for all types of coated or tacky papers and fabrics used in packaging.

WRITE FOR FOLDER

**CAMERON MACHINE COMPANY**  
 61 Poplar Street, Brooklyn 2, N. Y.  
 MIDWEST OFFICE: 111 W. MONROE ST., CHICAGO, ILL.

## Good Package Design



### IMPORTANT TO MERCHANDISING AND TURN-OVER



Attractive packaging makes merchandise desirable. . . . It is the silent salesman of your product on retailers' shelves.

Recognized for their contribution to outstanding design in modern packaging, the ability and experience of the WLS staff of artisans are at your service.

Interview with Principals • No Obligation

36 Pages . . . 420 Pictures . . . an Exhibit of Performance  
 Write for a copy of it Today on your business letterhead

AMERICA'S LARGEST ORGANIZATION SPECIALIZING IN MERCHANDISE PRESENTATION  
**W. L. STENSGAARD AND ASSOCIATES, INC.**  
 395 N. JUSTINE ST. CHICAGO 7, ILLINOIS





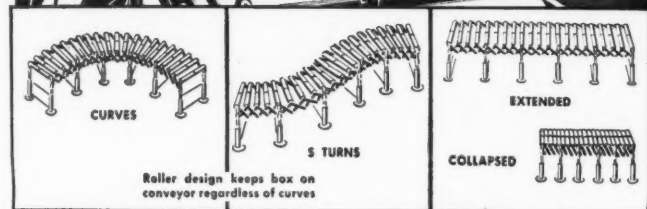
## FMC ACCORDION CONVEYOR

A better way to handle material,  
boxes and packages

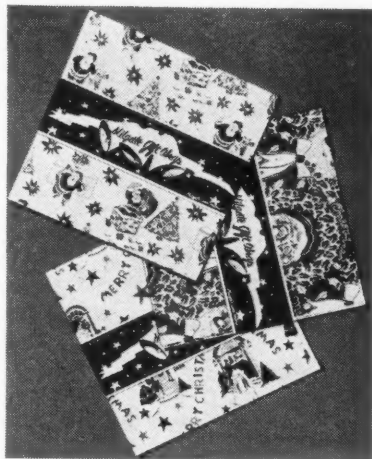
*Sets up anywhere in a few minutes*

Portable, extensible, collapsible and flexible, comes in as many sections as you want... will take your packages around curves or S turns...and when not in use can be folded up, ready to use again in a jiffy! In time, space and labor saving, this conveyor is a downright economy. Detailed information on FMC standard and portable conveyors on request. Address Dept. E.

**FOOD  
MACHINERY  
CORPORATION**  
RIVERSIDE DIVISION  
Riverside, California



## THE *Milgate* LINE ... XMAS WRAPS



Beautifully designed, well printed in three colors—on good stock (excellent strength, white glazed kraft) . . . these attractive Milgate Xmas Wraps are available in counter rolls and 3 sheet (20 in. x 30 in.) packets.

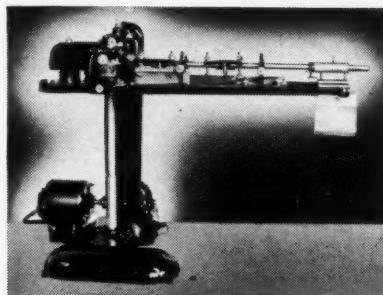
Deliveries from stocks on hand. Write today for sample swatches and prices.

Milgate are manufacturers of coated, laminated and other "Specialty Papers". They manufacture a complete line of stock papers . . . and special papers to meet your specifications or requirements. Write today . . . to see how Milgate can fit into your plans.

**PACKAGING DIVISION** 784 Public Ledger Building  
E. W. Twitchell Incorporated Philadelphia 6, Pa.

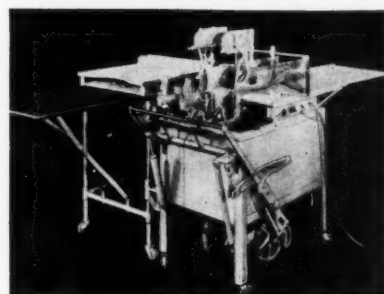
# AMSCO

SOLVES



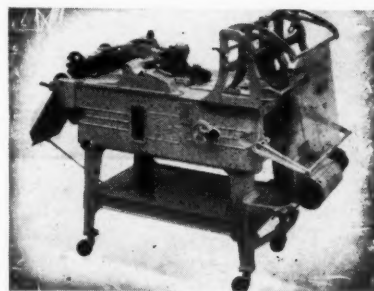
Amsco Automatic Rotary  
Bag Sealing Machine

YOUR



Miller Wrapping & Sealing Machine

PACKAGING



Simplex Bag Making Machine

PROBLEMS

Step up production and cut down your costs with Amsco equipment —adds speed and efficiency to your packaging.

- bag sealing
- bag making
- bag and carton weighing and filling
- bag aligning and conveying
- wrapping
- sheeting and gluing
- sandwich making and wrapping
- hand and foot operated sealing devices

AMSCO PACKAGING MACHINERY, INC.

31-31 FORTY-EIGHTH AVENUE  
LONG ISLAND CITY 1, N. Y.

STILLWELL 4-4840

*New*  
**VYNCOTE**  
SERIES OF  
*Plastic Coatings*



**VYNCOTE**  
The Modern PLASTIC COATING  
for Paper and Foil

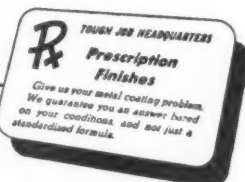
Vyncote plastic coatings, vinyl plastics in solution, present unlimited opportunities in the paper and foil industries. In application a flexible surface film is formed that retains all the properties of solid plastics. The coatings resist water, grease, oil, chemicals, heat, etc.; and are completely adaptable to your baking cycle whether it is one of seconds or hours. The improved Vyncote is completely inert, non-toxic, tasteless and non-inflammable. One of the Vyncote series is being supplied commercially at 60% solids using high solids and inexpensive solvents, thus effecting important savings in application costs.

Vyncote is available in colors or water-clear, and provides attractive high gloss finishes free from creasing or cracking. It is a prescription coating compounded to individual requirements as to use and method of application. Write for the Vyncote Technical Data Folder containing complete information.

**THE WATSON-STANDARD CO.**

Manufacturers of  
PAINTS • VARNISHES • INDUSTRIAL  
FINISHES AND LITHOGRAPH COATINGS

FACTORY AND GENERAL OFFICES:  
PITTSBURGH, PA. • WAREHOUSES:  
BOSTON, BUFFALO, DETROIT, NEW YORK



**We Export and Import**

All types of

**FOOD PRODUCTS**

Groceries. Produce Provisions

**ARTHUR HARRIS**

Established 1926

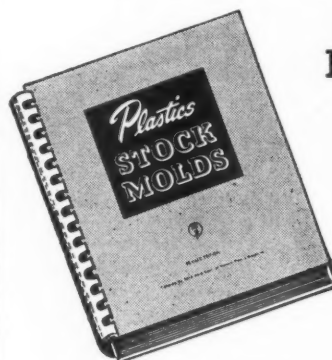
11 Broadway, New York 4, N. Y., Cable ARTHARRIS

Ref. Dun & Bradstreet

*Plastics*

**STOCK MOLDS**

**SHORT CUT  
PRODUCTION**



Important to every packager is the book of more than 1500 stock molds containing many packaging items such as closures, boxes, lipstick packages, cosmetic containers, charms, applicators, etc.

Book also contains the only standardized index of stock extrusions including profiles, rods, and tubes; also standardized index of laminated sheets, rods and tubes.

Completely illustrated with photographs and cross-sectional drawings; and indexed with manufacturers names and addresses.

Price \$5.00 (Foreign \$6.00)

**PACKAGING CATALOG CORPORATION**

122 East 42nd Street, New York 17, N. Y.



Visit booth  
601 at Nat'l.  
Power Show,  
N.Y., Dec. 2-7

### 1 One Piece Frame Construction

SPEEDLIFT is sturdy — has all-welded structural steel frame! No upkeep — no repairs — no spare parts! SPEEDLIFT is safe! The only exposed moving part is the endless RUFFTOP belt itself. The drive sprocket and motor area are enclosed.

### 2 Quiet and Ease of Operation

SPEEDLIFT is powered by a reversible 1/3 horsepower gear head motor for single phase, 60 cycle, 110 volt current with 25' extension cord. Two conveniently located START-N-STOP switches at either end mean simplified control of materials.

### 3 Multi-purpose and Versatile

SPEEDLIFT is adjustable — reversible — portable! It's adjustable to every conceivable elevation and angle from horizontal position to 35°. The reversible SPEEDLIFT can be used as an individual unit — as a connecting link in a system — or as a feeder conveyor!



Represented by experienced Material Handling Equipment Engineers in principal cities.



complete  
plastic  
display  
fabrication

"ALL UNDER  
ONE ROOF"



to produce outstanding display units for some of America's leading firms.

Like sparkling crystal, this attractive lucite display stand represents a distinctive achievement in plastic design, fabrication, assembly and engraving. It is a typical example of Printloid's versatile ability

**Printloid INC.**  
PLASTIC FABRICATION

DEPT. MP

93 MERCER STREET, NEW YORK 12, N. Y.

Write for our new  
1946 catalog of special  
plastic fabrications.

"The House That Plastic Built"

# BIG packaging problem?

Use our complete packaging service!

● Many a business today is "sticking out its neck" by attempting to do "too big" a packaging job all by itself. Lack of equipment, shortage of space, scarcity of labor—any one or all three—may be the big packaging problem that is cutting down on your production.

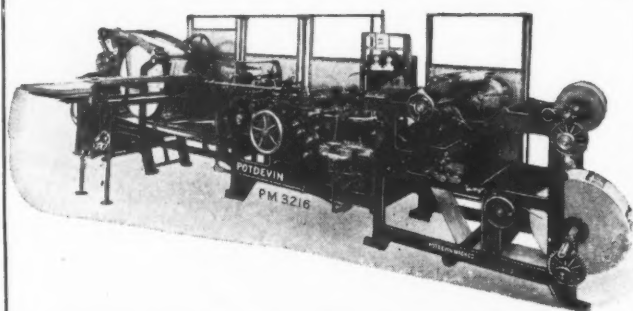
● Stevens-Wiley is prepared to help you eliminate these problems by taking over your entire packaging operation or by supplementing your own packaging facilities. ● Our high speed automatic equipment will efficiently handle the mixing, filling, weighing and labeling of all types of dry powders and chemicals in cartons, cans or envelopes. Why not investigate today?



**THE STEVENS-WILEY MFG. CO., INC.**  
HANCOCK & W. BERKS ST., PHILADELPHIA 22, PA.



## DUPLEX COFFEE BAGS



# POTDEVIN

HIGH-SPEED  
SELF-OPENING-SQUARE  
COFFEE BAG  
MACHINERY

Aniline & Oil Ink Printing Presses, Waxing,  
Gluing, Varnishing and Laminating Machines.

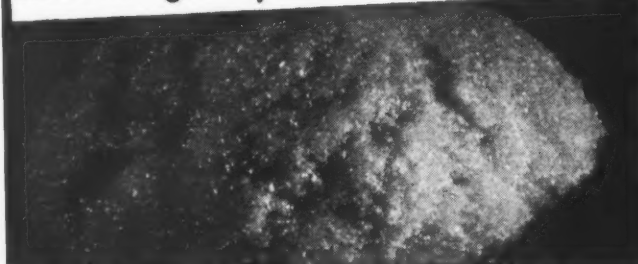
**POTDEVIN MACHINE CO.**

EST. 1893

1244 38TH ST. BROOKLYN 18, N. Y.



## RAYCO "Cellophane Spangles"



To "HIGHLIGHT" your  
newest packages

Rayco Spangles bring thousands of sparkling highlights to your package, display or sign. A truly novel surface, economically obtained, with color effects possible by using colored adhesive. Adheres to paper, cardboard, wood, cloth, glass, plastic, etc.

*Request Free Samples of "Spangles"*

**RAYON PROCESSING CO. OF R. I. INC.**  
110 TREMONT ST., CENTRAL FALLS, RHODE ISLAND

*Developers and Manufacturers of  
Printing and Coating Flock*

## Classified Advertisements

All classified advertisements payable in advance of publication: Rates: \$5.00 up to sixty words, enclosed in border, \$10.00 per inch. Publisher reserves the right to accept, reject or censor a classified copy.

**PACKAGING PLANT**, extensive modern machinery, will custom pack your product for NW territory. Trackage, receiving, shipping, billing, 3 carload refrigerators. 24 inch assembly or sorting conveyor. Cello wrapping. Cello bagging. Labelling. Continuous monorail basket cooking in syrup. Vegetable wash and tray pack or bag. Confections cook and package in which we specialize. Complete premium deal servicing. Cayol Foods, 626—3rd Ave. No., Minneapolis, Minn.

**WANTED** a man as Superintendent of Cellophane Converting plant. Must be experienced in both gravure and aniline printing. Working conditions best possible in a new modern building. All new equipment. Box 438, Modern Packaging.

Well-established paper plant in East now expanding its packaging division will entertain representation in eastern and mid-west cities on territory basis. Must be wide-awake organization with established clientele and wide field of potential customers. Write full details. Box 465, Modern Packaging.

**PACKAGING ENGINEER**: Ten years experience in design of industrial packaging in corrugated, folding box, and wooden crates and boxes. Age 39. Box 466, Modern Packaging.

**SALES REPRESENTATIVES WANTED** by Rotogravure firm specializing in narrow web printing, coating, and laminating of any materials in continuous rolls. Write full details to Box No. 467, Modern Packaging.

Opening for man with successful background in selling packaging field. Good spot with established plant expanding its packaging division. Give experience and qualifications.

Box 468, Modern Packaging

**FOR SALE**: Automatic Packaging Machinery.

ONE Model FAQ automatic wrapping machine with electronic eye attachment.

SEVERAL late model Amasco Roto-Crimp cellophane bag heat sealing machines.

TWO Speed-Wrap paper sheeters.

TWO "Ceco" carton gluing machines.

ONE Johnson automatic wrapping machine.

ONE 60" Fletcher extractor, heavy duty.

All machines in excellent condition.

Principals only.

Box 1236, Greenville, S. C.

**PROFITABLE GIFT WRAP BUSINESS FOR SALE**—Manufacturer of Christmas and Everyday Giftwrap wrapping paper wishes to retire from business because of other interests. . . . Business has been profitable since inception . . . \$25,000 stock will be sold at actual cost, with advertising and good-will costing thousands thrown in gratis. . . . You can get more than your money back from selling stock on hand to over 4000 active accounts. . . . Every Department Store, Drug Store, Stationery Store, 5-and-10¢ Store, and other retail outlets sell Giftwraps throughout year. Possibilities great for big profits for proper party. . . . Investment about \$25,000 in cash. . . . Will only talk to principals. . . . Box 469, Modern Packaging.

**WOULD LIKE TO CONNECT** with good folding box, also plastic packaging materials sources, on brokerage or commission basis. Box 470, Modern Packaging.

**SALES EXECUTIVE AVAILABLE**

Solid background of 10 years in methods of distribution, marketing, product development and selling methods. Presently successfully handling sales old established packaging machinery manufacturer but limited in advancement by internal organizational set-up. Desirous of connection whereby through hard conscientious work ability to produce can be rewarded. Free to travel. Box 471, Modern Packaging.

Here are 4 jobs  
done **MECHANICALLY** by

**PONY  
LABELRITE\***

\* Reg. U. S. Pat. Off.



— and many other items “glued together”  
where **PERFECT REGISTER** is an essential,  
are “naturals” for the **Pony Labelrite** —

**1** Finishing a formed paper cup by automatically applying its handle to the proper place on the cup.

**2** Applying 10 razor blade packs to a card in **ONE** operation. A valuable method of completing a sales-display card.

**3** Mounting top and bottom surfaces to complete a fan.

**4** Assembling rip-string in position, and applying double end seals on container.

Have you a job of similar nature (assembling or combining) to be done in your plant?

The function of the Pony Labelrite is to deliver an object to a predetermined place. In the above jobs, we pass over a glue roller on the way in order to adhere two objects together. No glue roll is necessary for such assembly jobs as slip sheeting, interleaving, inserting, etc.

It's the Pony's vacuum method and the "straight line" delivery that guarantees register. In glue jobs the twin-roller micro glue adjustment prevents any trace of excess adhesive.

For "pick up and place" or "pick up, glue off and place" elements in your daily routine, get details on the Pony Labelrite's speed and economy.

Ask for details— We'll gladly demonstrate!

**NEW JERSEY MACHINE**  
corporation

1510 Willow Ave.

HOBOKEN, N. J.

Chicago Office — 325 West Huron St.

Cincinnati Office — 1701 Carew Tower



# *Creative*

## DECORATION



### on your package



*Emphasizes transparency*

*Lends distinction*

*Helps sell the product*

Specialists in printing and decorating glass and plastics packages. We are equipped to handle your decorating in any quantity.

# *Creative*

## PRINTMAKERS, INC.

200 VARICK STREET, NEW YORK 14, N.Y. • WALKER 5-6300  
SURFACE DECORATORS FOR THE PACKAGING FIELD

In Canada: 2424 Yonge Street, Toronto, Ontario



300  
LD

are  
in

***Published by Modern Packaging Corp.***  
**122 East 42nd Street      New York 17, N. Y.**

NOVEMBER • 1946 201

FABRICATED BY W. C. RITCHIE,  
CHICAGO, ILLINOIS



how to "house"  
your product  
with

VUEPAK

Versatile Vuepak, rigid and transparent, often serves a functional as well as decorative purpose in packaging today.

Here is an example: a new vitamin box in which the vitamin capsules are attractively arranged with a skillfully punched and turned Vuepak interliner. The capsules are held in convenient rows for wet fingers to grasp without destroying the "clean look."

Today, in 24 basic merchandising fields, Vuepak is introducing new eye-appealing packaging ideas. If you want to see your product going ahead, let your customers see it in a gleaming showcase of Vuepak, the time-proved cellulose acetate packaging material. Your box supplier can supply Vuepak facts, or write direct: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Mass. In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.

#### Questions and Answers on Vuepak

**1. What is Vuepak?**

Vuepak is a transparent, tough, rigid, beautiful Monsanto cellulose acetate.

**2. In what forms is Vuepak available?**

In sheets up to 30" wide, and in continuous rolls 30" wide up to 1000 ft. long, in thicknesses up to .015". Available in .020" thickness in rolls with unit finish or in 20" x 50" press polished sheets.

**3. In what thicknesses is it ordinarily available?**

In six standard gauges 0.005" to 0.020".

**4. Does sunlight affect it?**

No.

**5. Is it affected by heat?**

Not under ordinary temperatures. It begins to soften after 200° F. Underwriters' Laboratories classification, "slow burning."

**6. How can it be fabricated?**

It can be drawn, shaped, formed or folded into almost any shape with inexpensive dies. It can be embossed, stapled, printed, cemented, or combined with other materials.

Vuepak: Reg. U. S. Pat. Off.

**MONSANTO  
PLASTICS**

SERVING INDUSTRY. WHICH SERVES MANKIND

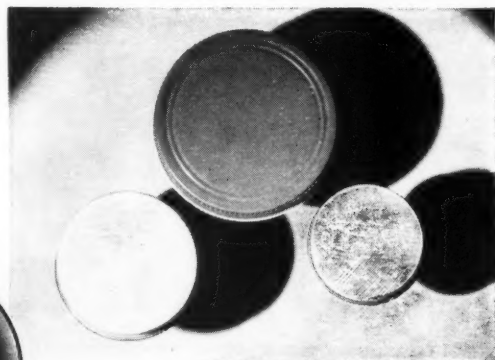


# RING



## ... the bell with a **BALL** Glass Container!

● She's serving it already! When she sees your product in glass it requires only a step of the imagination to see the fruit in the tart, topped with whipped cream, the beets a la Harvard, the peas steaming under a lump of melting butter. That's the way a housewife's mind works — even building a whole menu right there at the counter around YOUR product! Package in strong, lightweight, glass containers. Glass sells quickly. It is the package to use to reduce the time from SHELF to SERVING.



● Plain or lithographed ARIDOR caps ring bells for sales too. They insure positive sealing and convenient resealing. Have ARIDOR create an exclusive design for your brand.



The **ARIDOR**  
3428-40 WEST 48TH PLACE - CHICAGO 20, ILL.  
 A Division of Ball Brothers Company

**BALL Brothers Company**

General Offices MUNCIE, INDIANA



JUST HOW  
***FRESH***  
 CAN POTATO  
 CHIPS BE?



Potato chips . . . or any other product . . . can retain every bit of their original freshness . . . *if the package is efficient.*

Wise Potato Chips, as crisp and fresh as the moment they were packed, reach broader markets than ever before, in a specially designed package by Shellmar . . . strikingly identified, completely visible. Functional efficiency is a characteristic of *every* Shellmar package.

Another example of Shellmar research and ingenuity in the development of unusual packages to give unusual protection to food products of every description. Whether yours is a fresh, frozen, dehydrated, or ready-to-serve product, chances are you can give it greater protection with a Shellmar package.



**SHELLMAR**

PRODUCTS CORPORATION  
 MOUNT VERNON, OHIO • SOUTH GATE, CALIF.